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January to June, 1936

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Key to Abbreviations in This Index

Or.—Original Article.
C. R.—Case Report.
B. M.—Bedside Medicine.
Ed.—Editorial.
E. C.—Editorial Comment.
C. N.—Clinical Notes.
L. M. H.—Lure of Medical History.

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Miscellaneous California Medical Organizations

Department of Public Health of the State of California

San Francisco—State Office Building, McAllister and Larkin Streets. UNderhill 8700.

Sacramento—State Office Building, Tenth and L Streets. CApital 2800.

Los Angeles—State Office Building, 217 West First Street. MAdison 1281.

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President—Percy B. Gallegos, 242 North Sutter Street, Stockton.

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The Public Health League of California

Executive Secretary, Ben H. Read. San Francisco Office, 450 Sutter Street. Los Angeles Office, Room 563, 1151 South Broadway.

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Hospitals and Sanatoriums

The Institutions here listed have announcements in this issue of California and Western Medicine. For Index, see advertising page 8.

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CALIFORNIA SANITARIUM
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Food and Drug Fakers Punished by Fines.—Fines of more than $1,000 imposed by federal courts in a California jurisdiction was a highlight in a record of prosecutions as summarized by the Food and Drug Administration.

One of the big fines was the $1,200 penalty assessed against Joseph W. Spiker and Frank W. Kimball, who called themselves the Melatol Laboratories, Inc., Oakland, California. These men promoted "Melatol," which was nothing but crude oil, as a cure for diabetes. The medicine, selling at $5 for a box of 112 capsules, was "discovered" by Spiker, who, prior to 1930, sold it in Salt Lake City under the name "Paramount Oil." While doing business there, Spiker was told by the Utah authorities that the material was worthless in the treatment of diabetes. Because of the Utah objection, Spiker went to California and became associated with Kimball in the "Melatol" venture.

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Medical Publishers.—Harper & Brothers announce that they have acquired the medical book publishing business of Paul B. Hoeber, Inc. A program of expansion is planned, and medical books will be published under the imprint of Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers. Paul B. Hoeber, the founder, remains in charge of this department.

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List of Books Received

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Diseases of Women. By Harry Sturgeon Crossen, M. D., F. A. C. S., Professor Emeritus of Clinical Gynecology, Washington University School of Medicine; Gynecologist to the Barnes Hospital, St. Louis Maternity Hospital, and St. Luke's Hospital; Consulting Gynecologist to De Paul Hospital and the Jewish Hospital; Fellow of the American Gynecological Society and of the Central Association of Obstetricians and Gynecologists, and Robert James Crossen, M. D., Instructor in Clinical Gynecology and Obstetrics, Washington University School of Medicine; Assistant Gynecologist and Obstetrician to the Barnes Hospital and the St. Louis Maternity Hospital; Gynecologist to St. Luke's Hospital and to De Paul Hospital; Fellow of the Central Association of Obstetricians and Gynecologists. Eighth edition, entirely revised and reset. Cloth. Pp. 999, with 1,058 engravings, including one color plate. Price, $10. St. Louis: The C. V. Mosby Company, 1935.

The Parathyroids in Health and Disease. By David H. Shelling, B. Sc., M. D., The Johns Hopkins University and Hospital, Baltimore. Cloth. Pp. 335, illustrated. Price, $5. St. Louis: The C. V. Mosby Company, 1935.

Infant Nutrition. A Textbook of Infant Feeding for Students and Practitioners of Medicine. By William McKim Marriott, B. S., M. D., Professor of Pediatrics, Washington University School of Medicine; Physician in Chief, St. Louis Children's Hospital, St. Louis. Second edition. Cloth. Pp. 431, illustrated. Price, $4.50. St. Louis: The C. V. Mosby Company, 1935.

Immunology. By Noble Pierce Sherwood, Ph. D., M. D., Professor of Bacteriology, University of Kansas, and Pathologist to the Lawrence Memorial Hospital, Lawrence, Kansas. Cloth. Pp. 608, illustrated. Price, $6. St. Louis: The C. V. Mosby Company, 1935.

The Special Procedures in Diagnosis and Treatment. An Outline for Their Understanding and Performance. By Don Carlos Hines, M. D., Clinical Instructor in Medicine, Stanford University. Paper. Pp. 66. Price, $1. Stanford University: Stanford University Press, 1935.

Constructive Eugenics and Rational Marriage. By Morris Siegel, M. D., Hamilton, Ontario. Cloth. Pp. 196. Price, $2.50. Toronto: McClelland & Stewart, Limited, 1934.

New Pathways for Children With Cerebral Palsy. By Gladys Gage Rogers, Director of Robin Hood's Barn: A Camp School for Children with Cerebral Palsy, and Leah C. Thomas, Director of Therapeutics at Robin Hood's Barn; formerly Associate Professor of Hygiene and Physical Education, Smith College; formerly Director of Corrective Exercises Under the Direction of Dr. Joel E. Golthwait and Dr. Robert B. Osgood, Boston, Mass. With photographs by Newell Green. Cloth. Pp. 167. Price, $2.50. New York: The Macmillan Company, 1935.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M. D., Visiting Physician, Johns Hopkins Hospital, Baltimore, Md. Volume 4, Forty-fifth Series, 1935. Cloth. Pp. 331. Philadelphia: J. B. Lippincott Company, 1935.

(Continued on Next Page)

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BOOKS RECEIVED

(Continued from Preceding Page)

The Rockefeller Foundation. International Health Division. Annual Report, 1934. Paper. Pp. 235. New York: The Rockefeller Foundation, 1935.

The Patient and the Weather. By William F. Peterson, M. D. Volume 1, Part 1, The Footprint of Asclepius. Cloth. Pp. 127. Price, $3.75. Ann Arbor: Edwards Brothers, Inc., 1935.

Medical Treatment of Gall-Bladder Disease. By Martin E. Rehfuss, M. D., Clinical Professor of Medicine at Jefferson Medical College, Philadelphia, and Guy M. Nelson, M. D., Instructor of Medicine at Jefferson Medical College, Philadelphia. Cloth. Pp. 465, with 113 illustrations. Price, $5.50 net. Philadelphia: W. B. Saunders Company, 1935.

Short Wave Therapy and General Electrotherapy. By Heinrich F. Wolf, M. D., Consultant Department of Physical Therapy, Mount Sinai Hospital; Director of the Department of Physical Therapy, Neurological Hospital, Welfare Island; Chief, Arthritis Clinic, Union Health Center. Cloth. Pp. 96. Price, $2.50. New York: Modern Medical Press, 1935.

Complete Handbook on State Medicine. J. Weston Walch, Chief Compiler. Paper. Pp. 150. Price, $2.50. Portland, Maine: Debaters Information Bureau, 1935.

The real wealth of the nation does not consist in its money, in the value of its trade, or in the extent of its dominion. These are valuable only as they help to maintain a population and not only a part of it, of the right quality; men, women and children possessing bodily vigor, alert mind, firm character, courage and self-control.—Sir Arthur Newsholme.

THE CANNING PROCEDURE

• Some misunderstandings exist as to the mechanics of the commercial canning procedures. Although some such information is available (1) (2), it is not surprising that the facts are not more generally known. The art of canning has been largely developed by, and retained within, the industry.

Of necessity, canning procedures vary with the product packed. However, it is possible to indicate in broad detail the treatment to which foods may be subjected during canning.

Cleansing Operations

Raw materials are given a thorough water cleansing, usually by washing under high pressure sprays.

Preparatory Operations

Following washing, undesirable stock is removed by sorting, trimming, peeling and coring operations, as occasion may demand. With some products these operations are performed mechanically.

Blanching

Certain products are "blanched" or scalded by immersion in hot water. This process serves not only to clean the product further, but also to soften the tissues and expel air therefrom.

Preheating and Filling Operations

Here practice varies with the product. Sometimes the food is precooked and filled into cans; again, it may be filled into cans and hot water or hot salt and/or sugar solutions added; still again, the filled cans are "exhausted" in a steam or hot water box. All these operations, the majority of which are mechanically performed, serve to preheat the product and exclude air from the cans.

Sealing, Processing and Cooling Operations

The filled cans are hermetically sealed on an automatic "closing" machine while the contents are still hot; the sealed cans are then heat processed to destroy spoilage micro-organisms; finally, the cans are cooled in water or air. Cooling contracts the contents and produces a vacuum within the can.

Such are the broad details of the canning procedure. We trust this brief word picture will bring better understanding of the treatments to which canned foods are subjected.

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(1) 1924, Commercial Fruit and Vegetable Products,
W. C. Cruess, McGraw-Hill, New York

(2) 1924, A complete Course in Canning,
The Canning Trade, Baltimore

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BOOK REVIEWS

Corrective Rhinoplastic Surgery. By Joseph Safian, M.D. Pp. 218, with 242 illustrations by Joseph Tamerin, M.D. Cloth. New York: Paul B. Hoeber, Inc., 1935. Price, $9.

Emphasis is laid on the preparation of patients for rhinoplastic procedure, the need of proper asepsis, operating room equipment and preoperative preparation as in any major surgical procedure. Local anesthesia the anesthesia of choice.

A limited description of the surgical anatomy of the nose as well as the artistic anatomy is given. A measure, the photometer, is described to obtain the proper nose-face proportions.

In hypertrophies of the nose the incisions are all intranasal, nasal humps removed with saws, nasal base narrowed by additional saw cuts and any reduction of the tip or length corrected by excising appropriate tip or septal cartilage. Instruments used are practically all those devised by Doctor Josephs for rhinoplastic surgery.

In hypertrophies of the cartilaginous portion of the nose, septal or ala cartilages are excised intranasally according to whatever cartilage is the offender. The columella is sutured to the septal cartilage by through and through silk sutures. It may be necessary to excise part of one or all of the nasal cartilages, depending on the type of nasal deformity.

In prominent nostrils excision of the mucosa or mucosa and skin at the tip or base will correct abnormalities in these positions. Small nostrils, or stenosis of the nostrils, are corrected by turning in adjacent skin flaps after correcting the defect or using epithelial inlay to supply the lining.

Safian believes as a general rule that septal resections should be done about two or three months after nasal plastic procedures.

In the correction of saddle nose the dorsum of the nasal soft parts is elevated through intranasal incisions and the supporting structure aseptically introduced. If the nasal tip as well as the nasal bridge needs support, he favors the mid-columella incision for placing his nasal post. Cartilage is his preference for correcting the nasal defect, but he uses prepared ivory implants freely in children, small depressions in individuals not desiring a rib resection. In compound saddle noses appropriate incision with a return of the nasal structures to their normal location is advocated and then filling in the soft tissue defects by lining with adjacent skin flaps and covering with Indian forehead flaps.

In recent fractures of the nasal elements Safian replaces all deviated structures as soon as possible and splints the nose internally with packing and tubes, and externally with a nasal splint.

The author considers deviations of the nasal bones, cartilages and tips separately, and corrects them separately or together, depending upon the type of deviation present. He cautions against true and apparent unilateral nasal deviation. All deviations are corrected intranasally, correcting the bony deviations by subcutaneous saw cuts or bony excisions as needed; cartilaginous deviations by remobilizing the cartilage whether septal or nasal tip and suturing them into their proper positions.

Safian condemns the use of parafin injections for the correction of various facial deformities.

Throughout the whole text Safian describes only the standard methods of nasal reconstruction as performed by such men as Josephs, Gillies, Gratton, Lexor, New, Langenbeck, etc., and his own methods and modifications that have given him satisfactory results.

G. B. O'C.

(Continued on Next Page)

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BOOK REVIEWS

(Continued from Preceding Page)

Nutrition of Mother and Child. By C. Ulysses Moore. Fourth edition. Pp. 258. Illustrated. Philadelphia and London: J. B. Lippincott Company. Price, $2.

This relatively small 258-page book is an excellent summary on the subject of nutrition of mother and child. The text is simple, which makes it an excellent book for nurses, mothers, or other lay persons. Particularly does it seem of value to the prospective mother, as there is nothing couched in terms she would not understand and the direct fashion of the author would be convincing. Throughout, the subject matter is up to date and there seems nothing to which one might take exception.

Particularly forceful and illuminating is the author's discussion of breast feeding and its value. Today, when so many babies are bottle fed needlessly, the mother can not be too strongly coached on the value of breast feeding. The chapter on breast feeding and methods of breast expression could be read with inestimable benefit by the medical profession at large. While Doctor Moore may go to an extreme, it would not hurt the general profession to pick up some of his enthusiasm.

H. G. W.

Complete Handbook on State Medicine. J. Weston Walch, compiler. Pp. 150. Portland, Maine: Debaters Information Bureau, 1935. Price, $2.50.

Title is wrong, as it is not a "complete" handbook. Its extracts and references do an injustice to proponents and opponents, because a broad picture is not given of the opinion or argument advanced by the quoted reference. There is no evidence given that quoted authorities are competent to discuss the question. This handbook will go far in producing wrong conceptions and conclusions.

F. C. W.

(Continued on Page 20)

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> —*Kugelmass, Clinical Nutrition in Infancy and Childhood (p. 53)*

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BOOK REVIEWS

(Continued from Page 18)

Disorders of the Blood—Diagnosis, Pathology, Treatment and Technique. By Lionel E. H. Whitby and C. J. C. Britton. Illustrated. Pp. 543. Philadelphia: P. Blakiston's Son & Company, Inc., 1935. Price, $7.

The authors, pathologists who have worked together at the Middlesex Hospital, London, present a well indexed, well illustrated 523-page book on blood disease which is up to date, comprehensive and demonstrates how completely the work of Sabin, Doan, Minot and Castle has been accepted in England. Clinical features, rarer forms of blood dyscrasia, and technical methods are dealt with in clear detailed but occasionally repetitious manner.

W. D.

Emotions and Bodily Changes. A Survey of Literature on Psychosomatic Interrelationships 1910-1933. By H. Flanders Dunbar. Pp. 595. New York: Published for the Hosiah Macy, Jr., Foundation by Columbia University Press. 1935. Price, $5.

As indicated in the sub-title, this volume consists of short abstracts of research in this field from 1912 to 1933 and displays an industry and patience which really compels awe. This will be apparent when one sees that the bibliography covers 128 pages and includes 2,251 items. There is a proportionately long index of names and of subjects.

It should be an extremely valuable reference book for anyone engaged in the study of the relation of emotions to somatic changes.

E. W. T.

Diseases of the Skin. By Frank Crozer Knowles. Third edition. Illustrated. Philadelphia: Lea & Febiger, 1935.

This is a small volume intended primarily for the undergraduate student. It necessarily is not as complete as some of the larger texts.

The chapters on dermatitis (eczema), psoriasis, and erythema nodosum are particularly good. The treatment of syphilis is given in a concise and excellent manner.

(Continued on Page 22)

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BOOK REVIEWS

(Continued from Page 20)

Bismuth therapy should have been discussed in more detail. In some instances the space allotted to certain subjects is an indication of the author's interest in that particular subject and not due to its relative importance. Erythema of the ninth day and diphtheria of the skin each cover an entire page. Blastomycosis covers four pages, while coccidioidal granuloma is not mentioned.

There are some statements that are not generally accepted. The author states that tinea versicolor, psoriasis, and pityriasis rosea are papular diseases. Other authors classify them as macular. Actinomycosis is said to be commonly contracted from cattle and horses or from chewing straws. The recent literature on this subject states that animal to man transmission does not occur and that the theory in regard to chewing straws has been discarded. The author treats milia with trichloracetic acid, while most dermatologists simply remove them. The dosage of one-half a skin unit of x-ray every two weeks for eight treatments for acne is more than is generally used. Radium treatment and one hundred milligram doses of gold sodium thiosulphate for lupus erythematosis are not routinely given by most dermatologists at the present time. The treatment of large or hairy moles with x-ray is also a debatable procedure.

The photographs in general are good and are well chosen. The paper and printing are excellent. The book will undoubtedly be found to be of value by the undergraduate student and the general practitioner of medicine.

H. E. M.

Objective and Experimental Psychiatry. By D. Ewen Cameron. Pp. 271. New York: The Macmillan Company, 1935. Price, $3.

The effort of psychiatry to become a science by use of methods identical with or similar to those used by the acknowledged sciences is set forth in this book.

That the end is not yet achieved is no discredit to the psychiatrists. Even sciences based upon mathematics have not reached their goals. One may infer from the chapter headings which follow the line of reasoning which the author takes: Experimentation and Quantitation;

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At the end of each chapter are numerous references, and there is an author and a subject index. E. W. T.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 72)

papers and more time allowed for the discussion of them and for recreation would appeal to all. With forty or forty-five papers the session could be made of the very best scientific value and much fatigue which results from a crowded program be avoided. . . .

⸗ ⸗ ⸗

Council Meeting.—The fifty-third meeting of the Council of the Medical Society of the State of California was held at noon on December 15, 1910. . . .

The secretary presented a statement of the financial condition of the Society, showing that there was more than sufficient cash on hand to pay all current bills and take up all outstanding notes, leaving a balance in the treasury. It was then moved, seconded and carried, that the secretary be instructed to take up all outstanding notes of the Society ($500). . . .

From an article on "A Few Notes on the New Remedy for Syphilis, Ehrlich, 606, by Douglass W. Montgomery, M. D., San Francisco.

While in Buenos Aires on a trip through South America, Dr. Balmano Sommer told me the news of a remedy recently discovered by Ehrlich of Frankfurt that was said to be so startlingly effective as to constitute a revolution in the practice of medicine. I set out immediately for Europe. . . .

(Continued on Page 26)

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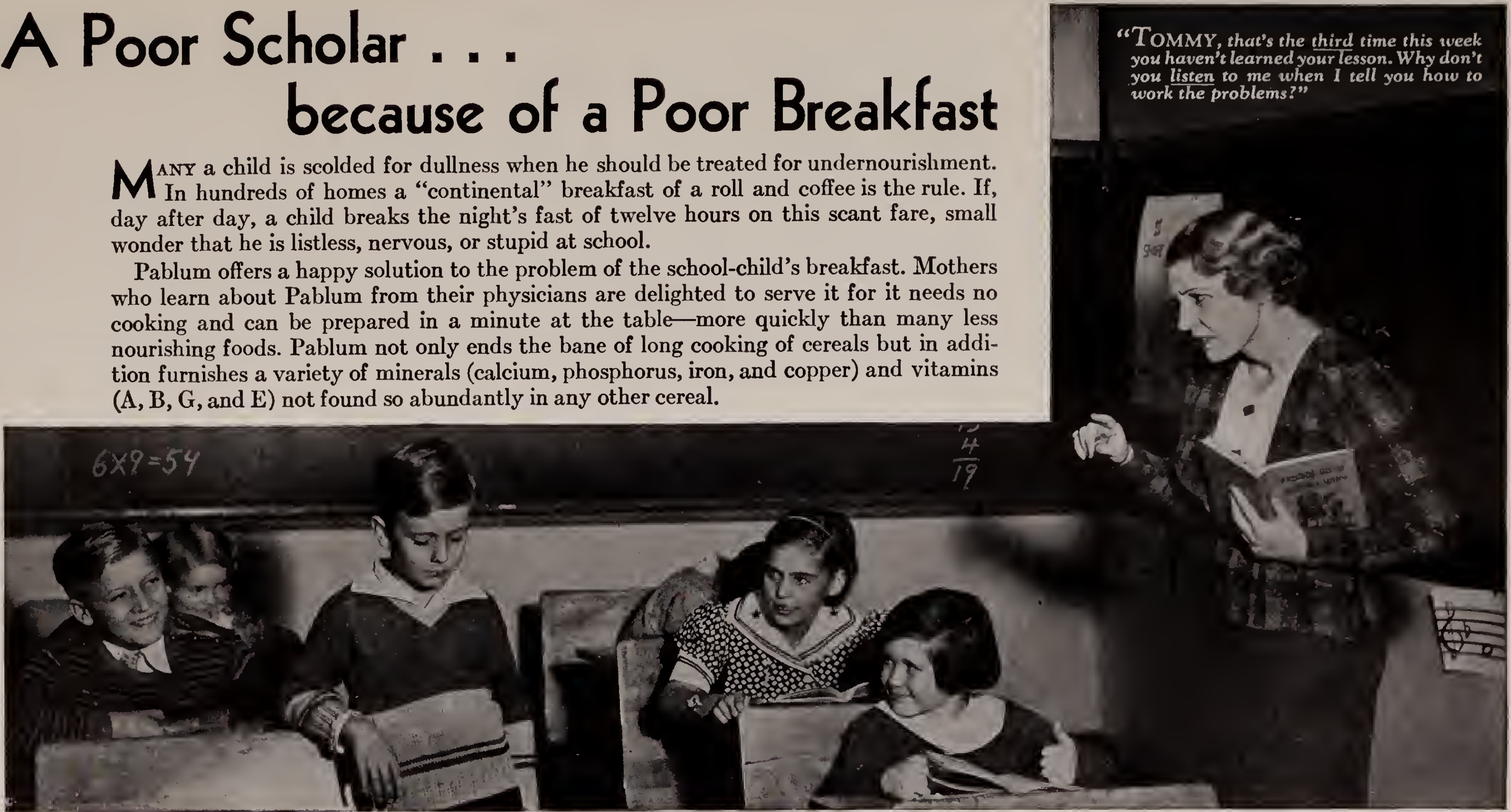
Pablum offers a happy solution to the problem of the school-child's breakfast. Mothers who learn about Pablum from their physicians are delighted to serve it for it needs no cooking and can be prepared in a minute at the table—more quickly than many less nourishing foods. Pablum not only ends the bane of long cooking of cereals but in addition furnishes a variety of minerals (calcium, phosphorus, iron, and copper) and vitamins (A, B, G, and E) not found so abundantly in any other cereal.



"TOMMY, that's the third time this week you haven't learned your lesson. Why don't you listen to me when I tell you how to work the problems?"

PABLUM is rich in calcium and iron, minerals likely to be deficient in the school-child's diet yet needed in more than average amounts during childhood. Pablum is 6 times richer than fluid milk in calcium and contains 10 times more iron than does spinach. It also furnishes generous amounts of vitamins B and G, essential for normal appetite. Unlike other cereals, Pablum is base-forming, important because the growing child needs to store alkali. The nutritional value of Pablum is attested in studies by Crimm *et al* who found that tuberculous children receiving supplements of Pablum showed greater weight-gain, greater increase in hemoglobin, and higher serum-calcium values than a control group fed farina. Reprint sent on request of physicians. Mead Johnson & Company, Evansville, Ind., U.S.A.

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TWENTY-FIVE YEARS AGO

(Continued from Page 23)

. . . There is no doubt "606" has a marvelous effect on active syphilitic lesions, whether primary, secondary, tertiary, or hereditary. What action it will have on such manifestations of syphilis as tabes and paresis can only be determined after long observation. . . . According to the first reports this remedy seemed strangely free from evil or disagreeable results, for, after all, the drug contains arsenic. . . .

From an article on "Serum Diagnosis of Syphilis" by L. S. Schmitt, M. D., San Francisco.

The serum diagnosis of syphilis is based upon the principle first expounded by Bordet & Gengou (Annales de Instit. Pasteur, Vol. 15, No. 3, p. 290, 1901), viz., that in infectious diseases there is a definite relation between the antibodies found in the patient's serum and the antigen (microörganisms, etc.), which formed them. . . .

Summary.—1. The Wassermann and the Noguchi methods are more reliable of all reported, by reason of the fact that the quantities of each reagent can be exactly determined.

2. The precipitate tests are not as reliable as the complement fixation reaction.

3. The value of the complement fixation reaction in the diagnosis of syphilis *per se* and as an etiologic factor has passed the stage of experimentation.

4. The reaction is of service as an index to the efficiency of treatment.

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5. The results of the test have proved that mercury is the main drug to be relied on during treatment of acute syphilis.

From an article on "Insects and Medicine—A Lecture,"[2] *by Creighton Wellman, B. A., M. D., Oakland.*

Medical entomology, or rather medical arthropodology, is not a new science, but a realization of its far-reaching importance is one of the hopeful signs of the present day. . . .

From an article on "The Coöperation of School Health Departments with Other Health Agencies" by Ernest B. Hoag, M. D., Berkeley.

Medical supervision of schools is rapidly becoming an increasingly important factor in modern education. The necessity for such careful supervision of the health and development of school children is no longer an open question. . . .

The result of the combination thus described is that all of the health agencies, including the School Health Department, the City Health Department, the Charity Organization, the Medical Dispensary, the Dental Dispensary, are now located within one block of one another and are combined under three roofs instead of five. . . .

(1) The School Health Department; (2) the City Health Department; (3) the Charity Organization; (4) the Medical Dispensary; (5) the Dental Dispensary; (6) the City Charity Commission; (7) the Red Cross Society.

What has been done on a small scale in Berkeley, the State Board of Health and State Medical Society have done on a much larger one. At the last meeting of the State Society and Public Health Association, the "Cali-

---

[2] From the Laboratory of Tropical Medicine, Oakland College of Medicine.

(Continued on Next Page)

CONSIDER THIS MATTER OF SUPPORT

Many physicians agree that there are certain situations in which the muscles and connective tissues are unable to do their work, as for instance—in some cases of pregnancy, visceroptosis, hernia, sacro-iliac disturbances, postoperative conditions and the like. When either abdominal or back support is deemed by the physician requisite to a return to physiologic balance . . . and a fabric garment is prescribed for this purpose . . . the great difficulty—it will be admitted—is to secure supports that are scientifically constructed, reasonably priced and properly fitted to the individual. It has been the definite objective of S. H. Camp and Company for over a quarter of century to manufacture supports with these qualifications.

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To insure the proper fitting of supports, to acquaint the profession with Camp models and to keep both physicians and fitters apprised of new garments, it has been necessary to establish the Camp Professional Support Service. With the development of this Service and the excellence of Camp Supports has been won the approval of such organizations as the American Medical Association and the American College of Surgeons.

In the announcements which are to be featured this year, we propose to explain in detail the various phases of the Camp Professional Support Service . . . how each factor in the Service helps to solve this matter of supports—to provide garments scientifically constructed, reasonably priced and properly fitted to the individual.

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Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245
Laryngoscope 1935 XLV, 149-154
N. Y. State Jour. Med. 1935, 35—No. 11,590★

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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

fornia Public Health League" was formed. This will, as far as possible, unite the efforts of every organized health agency in the State, including "The Society for the Prevention of Syphilis and Gonorrhea.". . .

From an article on "A Study in Heart Tonics" by W. E. Bates, M. D., Davis.

While therapy as a science has not kept pace with pathology and diagnosis with our modern clinical appliances for accurate determination of both cystolic and diastolic blood pressure, the field of cardiovascular therapeutics is gradually being placed on a firm scientific basis and there is a well-grounded saying that a skilled physician can be told from an unskilled by the way in which he gives digitalis. . . .

From an article on "Subcutaneous Injuries of the Abdominal Contents" [3] *by O. D. Hamlin, M. D., Oakland.*

Subcutaneous injuries of the abdomen can be produced in various ways, being caused from blunt violence, such as blows, kicks or falls upon the buttocks or feet, or being run over by vehicles, compression of the abdomen between two hard objects, etc. . . .

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 72)

tice Act was denied an appeal last week, yesterday paid a $178 fine. Hartman, convicted on three counts of violating the medical laws, carried his case to justice, superior, and appellate courts. He was sentenced to serve ninety

---

[3] Read at the eighth annual meeting of the Pacific Association of Railway Surgeons, San Francisco, August, 1910.

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CHLORINE	38.3 parts per million
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days or pay a $180 fine. He served one day of the term, thus reducing the fine by $2." (San Bernardino *Sun,* November 27, 1935.)

"In a unanimous decision, the Fourth District Court of Appeal yesterday denied a petition of E. B. Hartman, San Bernardino chiropractor, for a writ of habeas corpus to prevent his serving a jail term for violation of the State Medical Practice Act. . . . The decision . . . held that on a writ of habeas corpus the evidence in the case could not be reviewed, and that although a chiropractor is authorized to practice chiropractic as taught in college, he is expressly forbidden to practice medicine, surgery, osteopathy, dentistry, and the like. He also held that, inasmuch as the term 'chiropractic' is not defined in the Act, evidence would have to be submitted regarding what is taught

(Continued on Next Page)

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

in schools to make a determination of just how far a chiropractor could be permitted to go. The court itself made no effort to define the term 'chiropractic.' . . ." (San Bernardino *Sun,* November 19, 1935.)

"Declaring he is the personal physician to Emperor Haile Selassie of Ethiopia, and a friend of Mahatma Gandhi, J. E. S. S. Morandhi, 64-year-old negro, was arrested here today for asserted violation of the State Medical Practice Act. Investigating officers said the man had treated three negro women here, and was practicing medicine without a license. Morandhi, who also is a preacher, says he is the chief of Haile Selassie's medical staff." (Press dispatch dated San Diego, December 5, 1935, and printed in the Los Angeles *Times,* December 6, 1935.)

"Dr. Andres R. Stadin, Los Angeles-trained surgeon. . . . was in the thick of the bombing yesterday in remote Dessye, Ethiopia, according to dispatches. With him under fire, his friends here presumed, was his courageous wife, a graduate nurse and her husband's assistant in managing the Dessye Station Hospital. . . . It was built in 1926 under the direction of Dr. George C. Bergman, also of Los Angeles, and now chief surgeon at Addis Ababa to Emperor Haile Selassie. . . . Anxiety was also felt yesterday by members of the College of Medical Evangelists for Dr. Tesla C. Nicola, who left Montebello two years ago for missionary service in Ethiopia. . . ." (Los Angeles *Illustrated Daily News,* December 7, 1935.)

"He was a 'doctor,' he told Loney Peacock, Ford agency salesman at El Centro, and he nursed a close-cropped blond moustache while he critically discussed the new car Peacock praised. Then Peacock drew up a detailed statement of price for car, insurance, brokerage, carrying charge, or whatever the dealers call the various items they add to the f. o. b. cost. The 'doctor' decided to try the car in a test run. He climbed behind the wheel, a youngster, eighteen, and two women got in with him and they drove away. He has not come back. Peacock asked the law to make inquiries, and the law found the 'doctor' and the new car last night had passed the inspection station on the Los Angeles highway at Truckhaven, bound in the direction of Indio." (Brawley *News,* November 26, 1935.)

"Attorney-General U. S. Webb has ruled that a chiropractor has no legal right in California to hold himself out as being entitled to do obstetrics. . . . Webb stated obstetrics is not included in the field of chiropractic. . . ." (Marysville *Star,* November 24, 1935.)

"Careful scrutiny of narcotic prescriptions issued by physicians with a view toward ascertaining if the Harrison Narcotic Act is being violated, was started yesterday by local federal narcotic agents, following the arrest in Riverside of Dr. William B. Payton. Doctor Payton was taken in custody and charged with issuing unlawful narcotic prescriptions. Arresting agents asserted he had dispensed several unlawful prescriptions in recent weeks. . . ." (Los Angeles *Times,* November 28, 1935.)

"William D. Noland, 3944 Wilshire Boulevard, who advertised himself as a 'bloodless surgeon' and was convicted last week of practicing medicine without a license, today was sentenced to pay a $200 fine and given a stay of execution until Friday to pay it. Municipal Judge Irv-

(Continued on Page 34)

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EDITOR . . . . GEORGE H. KRESS

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Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this journal.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

HEALTH INSURANCE QUESTIONNAIRE: RESULTS IN POLL OF CALIFORNIA PHYSICIANS

How the Voting Stood on December 18.—The December number of the JOURNAL commented (on page 395) on the post card-questionnaire regarding health insurance mailed on November 25 to all licensed physicians in California on whom had been conferred the degree of doctor of medicine. Members of the Association will be interested in the replies received, up to date of December 18. The respective totals, as shown practically a month after the card was sent out, will probably vary but little from the final figures, when the voting is closed. Association Secretary Warnshuis at our request has sent to us the following figures:

QUESTION	YES	NO
1. Shall the California Medical Association endorse any legislative change in the present system of medical practice?	1162	1947
2. Are you in favor of compulsory health insurance?	848	2645
3. Are you in favor of voluntary health insurance?	1630	1130
(*a*) Voluntary health insurance carried on by the State of California?	282	685
(*b*) Voluntary health insurance carried on by lay companies under legislative control?	255	677
(*c*) Voluntary health insurance carried on by some form of organization of licensed physicians of California created by legislation?	2569	803

* * *

The Ballot Returns, when Reduced to Percentages.—When the above totals are reduced to percentages, it is noted, as regards the question concerning endorsement by the California Medical Association, that a total of 3,109 physicians (inclusive of both members and nonmembers of the California Medical Association) voted on this question, and that about 37 per cent were in favor, while some 63 per cent were against the California Medical Association endorsement.

On Question 2, that of compulsory health insurance, with 3,493 votes cast, 76 per cent of the physicians voted against compulsory health insurance, with 24 per cent in favor.

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† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column, which follows.

Voluntary insurance (Question 3) received a total of 2,760 votes, of which about 58 per cent were in favor of such a system, and 41 per cent against.

* * *

Tentative Conclusions on the Ballot Results to Date.—These tabulations, on the major questions submitted, in so far as tentative conclusions may be drawn from ballots cast to date, would indicate:

(1) That about 60 per cent of the licensed physicians of California are opposed to official endorsement by the California Medical Association of a legislative change in the present form of medical practice;

(2) That practically 76 per cent of the licensed physicians of the State are opposed to compulsory health insurance; and

(3) That about 58 per cent of the licensed physicians are in favor of some form of voluntary health insurance.

The final compilation will be submitted to the Council at its January 18 meeting and a report thereon made in the February Journal. Readers who have not cast their ballots are urged to do so.

* * *

Interesting Comments of Senator Dan E. Williams, Chairman of the Late Interim Committee on Health Insurance.—In connection with the above, it may be permissible to refer to a letter received from Senator Dan E. Williams, who was chairman of the Senate Interim Committee that had charge of Senate Bill 454 in the last legislative session. Our attention was called to an address which Senator Williams made in Los Angeles, and in response to our letter for a copy of his remarks, he wrote:

> I am in receipt of your request for a copy of my talk before the Los Angeles County Medical Society on November 13. I happen to have a copy of this rather carelessly prepared talk and am sending it to you herewith.
>
> Friday night last [December 6] I had the pleasure of being with the San Joaquin County Medical Society at their annual meeting in Stockton, and the report of the preliminary ballots is not so widely at variance with my statement that the medical profession—at least 90 per cent—were opposed to compulsory health insurance. The 83 per cent favoring voluntary insurance clearly indicated the trend in this situation, and made my guess a pretty good one.

* * *

Excerpt from Senator Williams' Address.—Because Senator Williams is also a member of the new Senate Interim Committee on Health Insurance, some paragraphs from his Los Angeles address, as reflecting his layman's and legislator's point of view, may be of interest:

> . . . For a quarter of a century I have been interested in legislation having to do with health (for that is the time, with slight intermission, that I have served the State in the legislature) and in every session I have served on the Public Health Committee, frequently as chairman.
>
> The Committee on Public Health has to do with your problems and most everybody else's. . . . Medical and dental laws are just incidental to this committee. Everything having to do with public health comes to the hopper of this committee. From termites to tomatoes; from oleomargarine to osteopaths, we regulate ceaselessly and without batting an eye. No longer can the advertising dentist or doctor issue "lure" advertising; no longer need we fear the wiles of the painted beauty with the false set of teeth who would betray us for $5 and our old set. We have that all fixed, and "painlessly," says Doctor Parker.
>
> The doctor has come in for his share of regulation. Most of this regulatory law has been at his own instigation. The people have not been greatly concerned over it as yet.
>
> At times doctors and dentists have come into our political picture, and always a druggist or two, so at times we have had the benefit of experience; but they always fade out, and we laymen have to struggle along with our regulating by ourselves. I am satisfied if we ever had two doctors or two dentists elected at the same time to our legislature we would have no medical or dental laws during that particular session, so close in agreement are men in these particular professions. . . .
>
> In due time the bill—Senate Bill No. 454—was introduced in the Senate and referred to the Senate Committee on Public Health. This committee of seven members agreed with me that all this bill needed was amendments. I presented numerous proposed changes, and they were adopted by a committee vote of 5 to 2.
>
> With only two votes for the bill, amended out of all semblance of its original intention, no further consideration was given to it. It died a natural and a painless death. May it forever rest in peace. But regardless of the ultimate fate of this bill, a militant minority of approximately 10 per cent of the doctors of the State had scared the life out of a timid fearful 90 per cent of the profession. . . .
>
> Compulsory insurance, hated by most of our physicians, became a dead issue. Big and little business was against it. Labor was for it, if not assessed for its maintenance, and against it, if it (labor) was made to pay the costs. . . .

QUALIFYING CERTIFICATE (BASIC SCIENCE) INITIATIVE TO BE POSTPONED: REASON, THE NEW REGISTRATION LAW OF CALIFORNIA

Results of the Ballot on Council's Referendum.—As already stated on page 395 of the December number of California and Western Medicine, the Council, under date of November 12, 1935, ordered a referendum in order to learn whether the members of the Association were in favor of spending up to $35,000 of the Association's reserve funds, to place a proposed Qualifying Certificate (Basic Science) law on the November, 1936, ballot, the details of which referendum are given in last month's issue.

Up to December 18, a total of 2,334 replies had been received at the Association's office—2,051 for, and only 283 against the proposition. The vote as cast, therefore, indicated that about 90 per cent of the members were in favor of a qualifying certificate law, containing the provisions outlined on page 321 of the November issue of the official Journal. A vote so favorable could be construed as nothing less than a definite mandate to the Council to proceed.

* * *

Supreme Court's Decision on California's New Registration Law Changed the Situation.—However, "circumstances alter cases," and in this matter, the change of outlook came from a recent ruling of the California Supreme Court, on certain registration amendments passed by the 1935 Legislature, whereby many thousands of voters now registered would not only not be eligible to vote after January 1, 1936, but also not eligible to sign initiative petitions, until such time as they re-registered. In other words, present indications are that some hundreds of thousands of voters, unbeknown at the present time to themselves, will not be eligible to vote in the May presidential primaries. Many of these citizens would be contacted when initiative petitions were being circulated, thus greatly increasing the number of invalid signatures. In fact, so great might be the error that the requisite number of valid 186,378 signatures (which it is necessary to have in hand and attested by county registrars of voters and state officials) would be most difficult to secure. In case the initiative petition lacked only a few of the 186,378 signatures needed, all the money expended at 10 cents a name, amounting to a possible total of $25,000, might be lost; besides it must be remembered that, in submitting to the Secretary of State the petitions required by law, almost an extra thirty to forty thousand signatures would be necessary to eliminate error and legal complications.

* * *

Special Committee on Qualifying Certificate Law Recommends to Council that the Proposed Initiative Be Placed on Ballot in 1938.—In a meeting of the Special Committee held at San Francisco on December 14, it was unanimously voted by those present to report to the Council the inadvisability of placing the Qualifying Certificate Initiative on the November, 1936, ballot. The members of the Special Committee were of the opinion that, with proper alertness in legislative matters, the *status quo* of healing art laws could be maintained until the November, 1938, election; and under such conditions, the committee members felt they were not justified in counseling a course of action that might jeopardize reserve funds of the Association. The Council will act on the recommendation at its meeting on January 18.

* * *

Study and Drafting of the Proposed Initiative Will Be Continued by the Special Committee and Council.—In the meantime, the Special Committee is proceeding with its study and draft of the proposed law; and such continued consideration of the legal phraseology on a statute submitted at great expense to the vote of the electorate can only make for a better qualifying certificate law. In due time, therefore, additional progress reports will be made.

* * *

Secretary of State Jordan's Letter to California Medical Association President Peers.—To the above comments may be added the following letter, written by Secretary of State Frank C. Jordan to Doctor Robert A. Peers, president of the California Medical Association:

> In reply to your letter of the 9th, with respect to registration of voters and signatures necessary for initiative measures.
>
> The last registration of this State, for the special election held August 13, 1935, totaled 2,622,782. A new registration will go into effect the first of next year. It would be rather difficult to estimate how many of this figure would re-register between the first of the year and the fortieth day prior to the May Presidential Primary.
>
> It has been estimated that some 500,000 now on registration are not entitled to vote, due to various so-called evils of the present permanent registration. In normal years we do not believe more than 1,500,000 would register in the three months. However, due to the May Presidential Primary the figure may reach 1,750,000.
>
> Signatures on initiative petitions may be obtained at any time after the first of the year and can be filed with the county clerks up to the 110th day prior to the November election. The number of signatures of qualified electors necessary to qualify an initiative is 186,378.

SENATE BILL 392, CHAPTER 638, UNCONSTITUTIONAL: BILL TO LICENSE CLINICAL LABORATORY TECHNICIANS DECLARED NULL AND VOID

Senate Bill 392 Was Enacted by the 1935 Legislature.—One of the proposed statutes submitted to the 1935 California Legislature was Senate Bill 392, its title being:

> "An act relating to the conduct of clinical laboratories and the licensing of clinical laboratory technologists and clinical laboratory technicians and the issuance of permits to physicians and surgeons conducting clinical laboratories for the purpose of protecting the public health and to provide penalties for the violation of the provisions of this act."

This bill received critical attention during its consideration in the Senate and Assembly, but was finally passed, receiving on July 15, 1935, the approval of Governor Frank Merriam. Complying with the provisions of the bill, the State Board of Health submitted to the office of Attorney General U. S. Webb, for opinion, certain proposed regulations. In reply, the Attorney General, through Deputy Lionel Browne, under date of November 19, 1935, wrote that his office considered "the entire act unconstitutional and hence without force or effect."*

The lesson to be learned from this mistaken enacting, as also from the making of other laws by the last legislature and now in legal question, is the importance of deep consideration of every word, sentence and provision in a licensing or regulating law. To draft, along new lines, a statute dealing with matters of regulation, and to make the same legally sound, is no light task, as many decisions of the courts attest.

UNITED STATES PUBLIC HEALTH SURVEY ON CHRONIC ILLNESSES IS STARTED IN CALIFORNIA

Last Congress Authorized a Survey on Chronic Illnesses.—By action of the last Congress, the United States Public Health Service was instructed to make a survey of chronic illnesses, of sufficient scope to present a fair cross-section of the Union. The work will be in charge of Assistant Surgeon-General L. R. Thompson, who will be assisted by area and state directors, and local chiefs of surveys. The plan contemplates interviews with some 750,000 families who are residents of nineteen states. In California about 46,000 families are to be contacted and reported upon, and the following communities have been selected as representative of the State:

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* Deputy Browne's communication is printed in the Letters department on page 67.

Bakersfield	6,500
Chico	2,000
Grass Valley	3,800
Jackson	2,000
Los Angeles	20,000
Napa	1,600
Oakland	7,500
Vallejo	3,500

* * *

Thirty Thousand Field Representatives Will Engage in This National Survey.—In Los Angeles, the sections in which the 20,000 families are to be interviewed were selected by the Federal Census Bureau. The entire survey, it is hoped, will provide employment to 30,000 workers; and to thoroughly accomplish the investigation in Los Angeles, no less than 131 of such field representatives are to work under a local chief. The director for California is Dr. Arthur Hieronymous, former health officer of Oakland.†

* * *

Scope of This National Survey.—A letter received from Mr. J. M. Sharp, who is connected with the Los Angeles office, quotes from an address by Senior Surgeon R. R. Spencer of the Federal Public Health Service, in which the objects of the extensive survey are thus summarized:

> By means of this survey, it is now proposed to study the prevalence, distribution, and causes of the disabling chronic degenerative illnesses which may occur at any period of life and which we believe are far more intimately associated with occupation, with economic and social conditions than the acute infections.
>
> The five chief phases of this survey are:
>
> 1. The extent of disability from, and the nature of chronic diseases and physical defects and impairments.
>
> Aside from the data obtained on members of the household as a population base for determination of rates, the aim will be to secure primarily a record of all illnesses keeping persons from work or from usual activities on the day of the enumerator's visit. All such illnesses during the preceding twelve months, if they caused inability to work or pursue usual activities for seven consecutive days or longer; specified chronic diseases, including orthopedic conditions, and the extent and kind of medical care received for each case.
>
> In all cases attended by a physician, it is planned to communicate with the physician and obtain from him a statement of the diagnosis of the ailment present and perhaps some additional information as to its severity. It is the aim to secure similar information from hospitals.‡
>
> 2. Inventory of public health and medical facilities. Information is not now available to give a composite picture of the public health facilities in various public health jurisdictions of the United States. Neither is it possible to show the geographic distribution of agencies of different types nor the extent to which programs of different kinds have been developed.
>
> 3. The extent to which health and medical facilities are used in different types of communities, in different income groups, and by persons suffering from various kinds of chronic disease.
>
> 4. Sickness and mortality rates according to occupation will be obtained from the records of industrial sick-benefit funds. Sickness and death rates will be computed for each numerically important disease or disease group, thus affording information concerning the type of illness to which specific working conditions may predispose.
>
> 5. The incidence of the communicable diseases, the frequency of vaccinations and immunizations, and the completeness of reports to health departments.

LOS ANGELES COUNTY MEDICAL ASSOCIATION HEADQUARTERS BUILDING: NUCLEUS OF A NEW MEDICAL CENTER

New Home of Los Angeles County Medical Association.—The story of the new headquarters and library building of the Los Angeles County Medical Association, opened to its members on October 25, 1934, was told in part on page 376 of the December, 1934, issue of California and Western Medicine, and reads almost like a romance. In the short space of a year, the value of these accommodations has been abundantly proved, and the hospitality of the Association's new home appreciated by many members of both the California and other state associations. Reference is again made to the structure, not only because its existence should be an inspiration to other county and state medical societies to make similar efforts to have homes of their own, but because in this issue is reprinted an article from the Los Angeles *Times*, describing a proposed addition to one of the major medical buildings located in the immediate vicinity of the county society headquarters, whose grouping around the county unit's building has already created a real medical center for the City of Los Angeles.

* * *

Income Return on Lot Leased to Wilshire Medical Building.—The structure to which reference is made is the Wilshire Medical Building,* which in some respects is in a class by itself, as far as our knowledge goes, of buildings erected for the exclusive use of physicians, dentists and their accessory affiliations.

The property on which the first unit of the Wilshire Medical Building was erected is owned by the Los Angeles County Medical Association, that component county society having leased the lot to the Wilshire Building holding company for a term of ninety-nine years, receiving for its use at the present time, an annual rental of $11,500, this rental to increase to a minimum of $15,000 per year when the mortgage on the Wilshire Medical Building has been retired. The county society may later receive a certain additional percentage on the gross income of the property, so that the annual rental in time may be brought up to, perhaps, $20,000—the lease provisions including, in its gross, not only the income received from the improvements erected on the original county society lot, but on structures built on property subsequently purchased by the Wilshire Building holding corporation. From an initial outlay, made only a few years ago, of less than ten thousand dollars for the purchase of the original lot, these beneficent financial results—which have helped to make possible the erection and maintenance of the new home and library of the Los Angeles County Medical Association—are certainly most gratifying.

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† Office address of Dr. A. Hieronymous is 534 Hobart Street, Oakland.

‡ The editor was told by Dr. Arthur Hieronymous that the Federal Government would pay twenty-five cents for each physician's report.

* For description of a new addition to the Wilshire Medical Building, see page 70.

Interesting Facts Concerning the Wilshire Medical Building.—And here it may not be out of place to call attention also to the following facts concerning the Wilshire Medical Building:

1. The original unit, erected in 1928, at a cost of $1,000,000 is almost entirely owned by members of the Los Angeles County Medical Association.

2. It was financed without discounts or commissions, practically all stocks and bonds sold being applied to construction.

3. All tenants in the building, with the exception of a small number of dentists, are members of the Los Angeles County Medical Association.

4. During the recent years of depression, the building has been rented up to 95 to 98 per cent of its capacity, and now it has a waiting list.

5. Its board of directors (Doctors Wayland Morrison, president; Edward M. Pallette, vice-president; Herman Zeiler, secretary-treasurer; Clarence Toland, William H. Kiger, Ernest C. Fishbaugh and Francis L. Anton, directors) are all members of the Los Angeles County Medical Association.

* * *

In These Investments, Physicians Were Good Business Men.—The statement so often made, that physicians know nothing of business, evidently does not apply to the enterprise here referred to; which, happily, because of its own good fiscal and administrative record, makes the outlook for continued financial returns to the Los Angeles County Medical Association almost certain. Both organizations are to be congratulated on the happy results already attained, and likely to be realized in the future.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 52.

EDITORIAL COMMENT†

ON SUGAR AND FRUIT JUICES BEFORE OPERATION UNDER A MAJOR ANESTHETIC

Since Doctor Sansum, some sixteen years ago, suggested to us that, in addition to our use of large amounts of sugar and fruit juices before operation under a major anesthetic, we follow the operation with 1,000 cubic centimeters of a 10 per cent glucose solution to prevent or lessen postoperative vomiting, we promptly began the use of intravenous glucose solution for this purpose, and recognized at once its great value as a food when nothing could be given by mouth to patients suffering from general peritonitis.

At that time, without being able specifically to follow up patients with so-called acidosis, we made the simple test of the urine for diacetic and acetone, and whenever these were found to be present the patient was given glucose intravenously. Not long thereafter we recognized the fact that considerable sugar was lost in the urine, and we then gave insulin.

In discussing this with Professor Chauncey D. Leake of the University of California, he submitted the following:

> "One unit of insulin will take care of approximately one and one-half grams of glucose. It seems only reasonable to administer insulin with glucose in connection with operative procedures, in order to assure the proper utilization of the glucose administered. The purpose of giving the glucose is to provide a ready source of energy. This will not occur unless the glucose is adequately metabolized. In an operative procedure the tendency of the anesthetic agent is to interfere with enzyme action generally, and there is specific evidence, as brought out years ago by Thalimer, that insulin secretion is diminished by anesthesia. In order, therefore, to utilize the glucose administered, insulin should be given with it."

Many men have made these observations and most of them have put their ideas in print, and no doubt all of us know these facts; but one seems to forget too easily, and therefore we should be excused for reminding the profession, from time to time, of these aids to the successful care of their patients.

384 Post Street.

Alanson Weeks
G. D. Delprat
San Francisco.

HYPERPYREXIA FOLLOWING THE USE OF ATROPIN IN THE EYES OF CHILDREN

Many physicians appear to be unfamiliar with the occurrence of hyperpyrexia following the use of atropin, and are liable to be misled by it.

The increased use of atropin in the so-called true colic of infancy, gastrospastic or entrospastic infants, require large doses, usually enough to produce a flush. The amount of atropin required for gastro-intestinal relaxation varies enormously, as it does in the time and extent of pupillary dilation. Whether a given patient will have fever with the other manifestations is impossible to predict; but when it does occur, it is usually in the patient's home and requires careful explaining, and may lead to much unforeseen difficulty.

The problem is further complicated by the leukocytosis which not infrequently follows these administrations of atropin.

The length of time also varies; but the fever usually starts in three to four hours after the oral administration, with its peak in six to eight hours, and rapidly disappears.

The flushing provoked need not be disconcerting, because the strong vasomotor reaction of atropin is constant in healthy individuals and seems to be a compensating phenomenon to counteract the temperature raising action of the drug.

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* This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

Infants and young children have a remarkable tolerance to atropin, in spite of the occasional striking by-effects. In large doses, or in sensitive individuals, it causes systemic poisoning, headache, dryness of mouth, palpitation, and hyperpyrexia. The hyperthermia is attributed to the muscular excitement and the suppression of diaphoresis, but this has not been clearly established.

An explanation may lie in the fact that the solutions of atropin used vary so widely. U. S. P. atropin sulphate is an intimate mechanical mixture of D and L hyoscyamins. The purest atropin is supposed to have the two constituents in equal quantities. However, L-rotatory hyoscyamus is from twelve to forty times more powerful than the dextro-rotatory, and also correspondingly more toxic. The reaction of atropin rests in the ratio of the D. and L. constituents.

The usual procedure is to instil one drop of a one per cent or one-half of one per cent solution every ten minutes until three instillations have been made, and followed by the refraction in not less than an hour.

1 drop of one-half of 1 per cent = .0032 or 1/20 gr.
1 drop of 1 per cent = .0065 or 1/10 gr.
3 drops of one-half of 1 per cent = .0097 or 1/6 gr.
3 drops of 1 per cent = .0195 or 1/4 gr.

Since 1928 I have seen six cases of hyperpyrexia following atropin as a cyclopegic, and when we consider that the adult dose is 1/150 of a grain, it is very surprising to me that we do not see this action more often following instillations of relatively high doses.

The important feature is for the clinician to realize, as he does in the case of mouth-parching and mydriatic propensities, that the atropin alkaloid group may give occasion for unexpected irregularities of temperature in his youthful patients.

490 Post Street.
Wilber F. Swett,
San Francisco.

FRACTURE OF THE NECK OF THE FEMUR: SIGNIFICANT ADVANCES IN TREATMENT

Intracapsular fracture of the neck of the femur has brought despair to doctors, distress to faithful nurses, crippling to many a younger victim, and death by slow torture to the aged and feeble. Bunnell,[1] in the July issue of California and Western Medicine, has given an able discussion of many of the details of this problem. It appears that, given accurate reduction and adequate fixation by a method which does not overtax the patient's strength, union of this fracture may be as confidently anticipated as that of other severe fractures in a patient possessing a similar recuperative capacity.

Leadbetter[2] has demonstrated an effective method of reduction. The addition of the lateral x-ray provides a sure means of checking reduction. Powerful portable units take x-rays in the operating room. Skin-clips, fixed before taking x-rays to check reduction and left *in situ* during operation, seem a more practicable means of localizing the fracture than specially devised instruments for steering the nail.

Utilizing the above facilitating measures, secure internal fixation of the fracture by steel nails may now be accomplished, with a minimum of shock, under local anesthesia.

Fixation by autogenous bone-peg requires so extensive an operation that it is expedient only in carefully selected cases. Rarely, if ever, is such fixation secure enough to make postoperative immobilization by cast or splint safely avoidable. Cross-pegging weakens the main graft materially.

Multiple small steel nails, toed in and impacted, accomplish such secure fixation that postoperative casts, splints, traction or sand bags are unnecessary. Immediate freedom of motion in bed may be permitted, and very early ambulation (without weight bearing) is safe. Suffering is greatly reduced. The danger of hypostasis and of decubiti is minimized.

As a device for internal fixation the flanged nail of Smith-Peterson, itself a good instrument, must, in the opinion of the writer, give way to the surer and more effective small steel nails toed in in a set of three. Moore's[3] method of multiple nail fixation has several distinct advantages over that used by Telson and Ransohoff.[4] Moore inserts his nails with the fingers, using a small-handled chuck. This permits the surgeon to feel the difference in resistance offered to the advancing nail by soft tissue, cancellous bone or cortex. (The writer has verified this in his own experience.) The surgeon is thus enabled to feel the nail go through the cancellous portion of the head, and drive it firmly into the cortex. The adjustable threaded head on the nail used by Moore permits effective impaction, a very significant detail. The expedient of wiring the triad of nail heads together insures against a nail working out.

Because this fracture occurs most frequently in those who are about to die of old age and its weaknesses, the morbidity and mortality will always be high. How distressing it has been to see so many pass their last days in the torment that so often unavoidably accompanies the so-called conservative methods of treatment. Nor has the doctrine of *laissez faire* given much peace to the surgeon or comfort to the patient.

Therefore, we hail the advent of a positive method which gives comparative comfort temporarily, together with the best hope of ultimate recovery. Let us not, however, forget that this method increases the exactions on both the skill and the armamentarium of the surgeon.

490 Post Street.
E. W. Cleary,
San Francisco.

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[1] Bunnell, Sterling: Calif. and West. Med., Vol. 43, No. 1, pp. 27-32 (July), 1935.

[2] Leadbetter, Guy W.: J. Bone and Joint Surg., Vol. 15, No. 4, pp. 931-940 (Oct.), 1933.

[3] Moore, Austin T.: Internat. S. Digest, 19:323-330 (June), 1935.

[4] Telson, D. R., and Ransohoff, N. S.: J. Bone and Joint Surg., Vol. 17, No. 3, pp. 727-738 (July), 1935.

HOW CORRECT IS THE ANSWER?

Modern medicine leans heavily upon the laboratory and other scientific aids in solving its diagnostic problems. As our knowledge becomes more exact and our concepts broaden, we call upon the laboratory for more tests to confirm clinical findings or measure impairment of function. And almost yearly the laboratory offers new aids to assist the clinician in arriving at a correct diagnosis of his patient's illness. Of the questions which the clinician puts to the laboratory, only a few can be answered by "yes" or "no," and these mostly in the field of bacteriology. Even a Wassermann report is qualified as to the degree of its positiveness.

The Normal Range.—In all instances where the laboratory is requested to measure a function of the human body the report must be in quantitative terms—in a numerical figure. This implies a normal standard with which the value reported for the patient must be compared. It is then necessary for the attending physician to decide if there is significant deviation from the normal. Some laboratories now print upon their report-forms the normal values, or range of normal for the various functions, as white blood count, blood sugar, etc. This is intended to be helpful, but carries the inference that physicians do not already know what the normal is. There is also the implication that any and every deviation from the normal given is evidence of a pathologic state. This, obviously, is not true.

Reflection upon these matters should warn us that, in resorting to scientific aids in diagnosis, there is danger that medicine will become too mathematical, and that the equally valuable art of medicine, centuries older than its science, will suffer a regrettable eclipse. I do not mean to disparage the contribution of mathematics to medicine, because it is true that all modern advance in medicine has come through scientific discoveries, and mathematics is the basis of science. The danger lies in the connotation which figures carry. The measure of any physiologic function, such as blood pressure, when set down as a numerical value carries an implication of accuracy and finality which it does not possess. This implication, and connotation, carried by figures is not inherent in them, but results from an inadequate training in the scientific use of figures. Figures are not the end, but only the means to an end. The obese patient who reduces his weight from 200 to 175 pounds may regard 175 pounds as the goal to be attained, but his wise physician knows that the aim attained is better health and a longer life for the patient.

It sometimes happens that fundamental research discovers a method of measuring some physical function, and the procedure is adopted into clinical medicine before the extreme limits of normal are known. Usually the range of normal widens as the number of clinical observations grows and our experience in measuring the function increases. In time the test attains its proper valuation and use in clinical medicine; or, if found valueless, it falls into disuse. Occasionally, it is well to remind ourselves that the hasty and uncritical adoption of new tests will lead to diagnostic errors.

Error of the Method.—A quantitative value in medicine is, after all, only an estimate and not an exact measurement, because there is a certain unavoidable error in every laboratory or clinical examination involving mensuration. The magnitude of the error may be inconsequential; as, for example, the error of 5 to 10 per cent which may be present in recording the pulse when its rate is counted for only fifteen seconds. But in other instances the error may be of such magnitude as to render very questionable the significance of a slight deviation from the accepted normal. Therefore, in addition to recording the maximum range of normal, all laboratory reports should give the error in the method used. It is necessary that the physician know the reliability of the method employed in obtaining the information he seeks.

Every physician who has made blood counts knows the possibilities for error. Usually he thinks of them in terms of his own technique, *i. e.,* correct proportions of blood and diluting fluid. He may wonder if his sampling is good, if the drop of blood obtained is a perfect sample of his patient's blood. Perhaps, in order to secure enough blood, the ear or finger was squeezed, thus disturbing the normal proportions of serum and cells in the sample. But aside from all these types of error there are others inherent in the method which seldom, if ever, occur to him. He may realize that there is a certain error if he counts only one hundred cells, and so he seeks to reduce it by counting two hundred cells, thinking he has halved the error. But it is necessary to count four hundred cells in order to reduce the error one-half. Then if he does a differential count, how many cells should he count? What is the error in a differential count of one hundred cells? If the polymorphonuclear leukocytes increase from 70 to 80 per cent in two hours, does it mean appendectomy is necessary, or is this a chance difference due to technique, or to the number of cells counted, or to error inherent in the method?

And so forth through the list of quantitative measurements. The blind faith of the uncritical in the significance of small differences obtained in estimating body functions is beautiful to behold, but not conducive to good diagnosis. Neither is too much reliance upon the laboratory to be lauded when advising therapy. A basal metabolism report of "plus 14 per cent" does not call for measures directed toward hyperthyroidism, even if the accepted upper limit of normal is "plus 10 per cent." There is an error of 5 per cent inherent in the method, and the report should have been rendered "between plus 9 and plus 19 per cent." Then the attending physician must decide whether or not the patient is thyrotoxic. The laboratory cannot, and should not, make diagnoses. It can only make reports which the physician correlates with all the other findings in order to arrive at a diagnosis.

490 Post Street.

J. Marion Read,
San Francisco.

ORIGINAL ARTICLES

THE SURGICAL TREATMENT OF LESIONS OF THE STOMACH AND DUODENUM*

By E. Starr Judd, M.D.†
Rochester, Minnesota

Gastric and Duodenal Ulcer.—A clear-cut distinction between gastric and duodenal ulcer was not made until late in the twentieth century, although reports in the literature indicate that gastric ulcer was recognized as early as 1600, and that two cases of duodenal ulcer were recorded in 1817. Evidently many of the diseases that constitute the problems of today were known to the men of ancient times. The magnitude of the problem of peptic ulcer alone may be calculated to some extent by the fact that in a period of twenty-six years we found it necessary at The Mayo Clinic to operate on about 3,000 patients for gastric ulcer, and in a period of twenty-eight years almost 13,000 patients underwent operation for duodenal ulcer. These figures, obviously, do not take into account those persons who harbored healed duodenal ulcer, those whose symptoms were controlled by dietary measures, or those who had such slight digestive disturbance that they preferred to tolerate the distress rather than to submit to any inconvenience that might result from adoption of a dietary regimen.

PATHOGENESIS OF GASTRIC AND DUODENAL ULCERS

The causes of gastric ulcer and of duodenal ulcer undoubtedly are somewhat allied. The fact that stands out as a dividing line is the extreme rarity of malignancy in the duodenum, and the relative frequency of lesions of that nature in the stomach. In the few cases of primary malignancy of the duodenum that have been reported, it has been difficult to prove that the disease has been a sequel of chronic duodenal ulcer. Experience with lesions of the stomach indicates that there must be some association between chronic gastric ulcer and certain forms of malignancy found in the stomach. Often it is impossible to distinguish between carcinomatous gastric ulcer and ulcerating carcinoma until microscopic study of the tissue is made. In about 19 per cent of the cases of gastric ulcer, the lesion was malignant. According to the experience of some pathologists, a gastric ulcer 2.5 centimeters or more in diameter is likely to have undergone malignant change. It might further be stated that the presence of carcinoma in lesions less than one centimeter in diameter has been demonstrated sufficiently often to preclude dismissing the possibility of carcinoma being present in small gastric ulcers. In specific instances there is much to suggest that the malignant process is the sequel of a chronic gastric ulcer.

It is logical to think that a better understanding of the whole situation should be gained through experimental work with animals, but the work has been impeded by the fact that benign ulcer of the stomach and of the duodenum are peculiar to man. It has never been difficult to produce an acute ulcer of the stomach experimentally, but only in recent times has it been possible to cause chronic ulcer at will, as has been accomplished by Mann, Dragstedt, and others. Matthews and Dragstedt concluded that the chemical action of pepsin-hydrochloric acid is the outstanding factor in the production of acute, and subsequently of chronic, ulcer; although gastric motility, trauma to the mucosa, and general systemic conditions help to promote progress of the process. Heredity may also play an important part in the development of ulcer. Perhaps, in some instances, infection of toxins exert considerable influence. Wilkie, after observation and study, expressed the belief that too much emphasis cannot be placed on irregular habits of living as a causative element. According to our experience at the clinic, only in a few cases can gastric ulcer definitely be traced to ingestion of ordinary chemicals. However, in a series of experiments carried out in an attempt to reproduce the changes in the liver which result from use of cinchophen, Bollman found that gastric ulcer developed in some of the dogs after the use of the drug.

Knowledge of the pathogenesis of ulcer does not progress rapidly, in spite of the vast amount of effort to solve the problem. In accordance with present knowledge, the logical treatment of peptic ulcer, whether medical or surgical, must be directed toward correction of the known etiologic factors.

TREATMENT

As soon as gastric and duodenal ulcer were thought of as distinct entities, and the possibility of malignant change in association with gastric ulcer was recognized, treatment of the two conditions took diverse paths. Up to this time no clinical or roentgenographic criteria have been found which will allow determination of whether or not there is a malignant lesion in the border of a chronic gastric ulcer; and so it is evident that the lesions must be removed before their exact nature can be determined.

In a few cases in which there is reason to believe that a gastric lesion is benign, there might be justification for trying medical and dietary management, provided that the patient can be kept under close observation. However, anyone who advises adoption of this plan should keep the possibility of malignant transformation foremost in his mind, and should be sure that later he can obtain the patient's prompt and willing acceptance of an operation, in the event experience indicates that this is the outstanding requirement. The immediate operative mortality rate among patients who have benign gastric ulcer is about half that encountered among patients whose lesions have undergone malignant change. Another interesting observation is that jejunal ulcer is relatively uncommon following surgical procedures employed for removal of gastric ulcer (twenty in a series of 597 cases of proved jejunal ulcer). The more the situation is studied, the more is the observer impressed with the fact that an ulcer of the stomach imposes a problem very different from that of an ulcer of the duodenum, from the experimental standpoint as well as from the clinical and surgical aspects.

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† Dr. E. Starr Judd died on November 29, 1935. See obituary in *Journal of the American Medical Association*, Vol. 105, No. 23, page 1930, December 7, 1935.

Formerly, in a large proportion of cases, treatment consisted of gastrojejunostomy for either gastric or duodenal ulcer. It proved a suitable procedure in many instances because the disease had been allowed to progress to an advanced stage, but, with improvements in both diagnostic and operative technique, and with opportunity for earlier diagnosis, local excision plus gastrojejunostomy have proved to be a satisfactory method of treatment, for gastric ulcer. Approximately 90 per cent of these lesions are situated along the lesser curvature. Eighty per cent of these ulcers are small, and are probably best treated by the method just described. In some instances, resection would be easier from a technical standpoint; but if the ulcer is of moderate size, excision and gastrojejunostomy will give a very satisfactory functional result. In other cases the technical procedure will be simplified by taking out the pyloric end of the stomach with the ulcer.

For a number of years the policy at the clinic has been to recommend surgical treatment to practically all patients with gastric ulcer; but it should be stated that when we carry out the operation, we favor a conservative procedure. Local excision was all that was deemed advisable in 222 instances; although in twenty-nine, malignant change was found in the ulcer at the time of operation. Gastrojejunostomy or gastroduodenostomy was employed in addition to local excision of the lesion in 888 cases of benign ulcer, and in forty-three cases of malignant ulcer. It is not always possible to follow a conservative plan of treatment on account of the large size of the lesion, the depth of the crater, or the extensive induration; consequently one of the more radical plans of partial gastrectomy was deemed advisable in 1092 of these cases. Furthermore, approximately 6 per cent of patients who have gastric ulcer will have multiple lesions which will require partial gastric resection. If the lesion is situated in the midgastric region, segmental resection occasionally is indicated.

In most cases of uncomplicated duodenal ulcer, medical management should be given a trial, and if it is inadequate, a surgical procedure should be undertaken. This is especially true of that unfortunate group of ulcer-bearing individuals who have the extremely high-strung nervous temperament which often accompanies a strong predisposition to ulcer. Since October, 1934, Rivers has used duodenal extract as a supplement to a regulated dietary regimen in more than fifty cases of clinical ulcer, gastritis, and jejunitis. This plan has given much promise, especially in instances in which there was no roentgenographic evidence of a crater. The excellent results which have seemed to come from the supplementary use of duodenal extract are impressive. Complete remission of symptoms has followed employment of 60 to 80 grams of the extract for periods varying from eight days to four weeks. However, sufficient time has not elapsed to justify the belief that the results will be permanent.

There are always some exceptions that must be made, and it is probable that there will be some uncomplicated cases of duodenal ulcer in which experience will indicate that there is nothing to be gained by continuing unsatisfactory medical treatment and delaying operation. However, when operation is employed, the procedure should be as conservative as the situation will permit. The requirements of such an operation include (1) minimal risk, (2) a reasonable chance for complete cure, and (3) ample provision for further operation should conditions require it. Adherence to such a plan is equally necessary in cases in which an operation is imperative on account of hemorrhage, obstruction, or perforation. Under these circumstances, temporizing beyond the point of opportune preparation of the patient only increases the risk.

Two procedures now are available which remove more of the recognized etiologic factors than any of the other operations for duodenal ulcer: (1) lateral anastomosis between the stomach and the first portion of the duodenum, and (2) excision of the cap of the duodenum with the lesion and the anterior two-thirds of the pyloric sphincter muscle, with closure as a gastroduodenostomy. These operations have a better physiologic basis, and are more practical than any anastomosis between the stomach and jejunum, which always provides an opportunity for the subsequent serious complication of jejunal ulcer. Furthermore, there is wider distribution of the food stream, and reduction of physical trauma. In addition, use of either of these procedures permits the acid content of the stomach to empty into the most alkaline portion of the duodenum, which is best fitted to care for this acid material. These two operations should be employed more often than they are.

Acute hemorrhage from a gastric or a duodenal ulcer rarely requires immediate operation, for the hemorrhage is not likely to be fatal, and the operative mortality is likely to be higher than if medical management is provided until the patient's general condition improves. Furthermore, it may not be possible to find the bleeding point if it is small or situated in a region of inflammation, without true ulceration. Of course, acute perforation of a gastric or duodenal ulcer necessitates emergency surgical treatment to save the life of the patient. If the ulcer is of the protected, penetrating type, careful medical supervision may reduce the acute reaction about the lesion, and may permit the operation to be carried out with less risk at a future time.

In selected cases, gastrojejunostomy continues to be a useful operation for treatment of duodenal ulcer. It is particularly satisfactory for older patients, and especially for those who have had symptoms of obstruction. At present, among the clientele of most surgeons in this country, there seems to be no good reason for radical resection of the stomach in cases of duodenal ulcer.

Table 1.—*Percentage of Various Operations for Duodenal Ulcer Employed in Different Periods*

Operations	1906 to 1926		1926 to 1933	
	Cases	Per Cent	Cases	Per Cent
Gastrojejunostomy	7,741	86.08	2,673	69.07
Local excision of the lesion	1,113	12.38*	1,014	26.20†
Resection	131	1.45	171	4.42
Pyloric exclusion	8	.09	12	.31
Cases	8,993		3,870	

* In 301 of these cases gastrojejunostomy also was performed.

† In 59 of these cases gastrojejunostomy also was performed.

The trend of selection of operations for duodenal ulcer in the clinic is well illustrated by study of the operations used in the past twenty-eight years (Table 1). Pyloroplasty has afforded very satisfactory results, and its use has been increased 100 per cent in the past ten years; study of 930 cases reveals the operative mortality to be less than one per cent. Lateral gastroduodenostomy also has gained in acceptance, for very few patients who are subjected to this operation require further attention. Resection of the stomach is employed in less than 5 per cent of cases of duodenal ulcer.

A few patients who receive surgical treatment for benign lesions of the stomach or the duodenum do not obtain complete relief, although evidence of recurrence of the original disease cannot be found. Some of these patients have persisting dyspepsia, which may be caused by some unrecognized intra-abdominal disease. In other instances, the symptoms are really insignificant and frequently can be relieved by a change in mode of living, correction of diet, and elimination of foci of infection. In some instances, a jejunal ulcer will form after establishment of anastomosis between stomach and jejunum, even though the operation was judiciously employed and skillfully performed; if further operation is required, establishment of a more nearly normal physiologic relationship of parts of the alimentary tract is indicated.

CARCINOMA OF THE STOMACH

In carcinoma of the stomach there is a place for conservative as well as for radical treatment, for in a few instances the malignant lesion is of such a character that local excision seems justifiable. This is true especially when the neoplasm appears to be in an incipient stage, small, well localized, and in such a position that a more radical operation would be exceedingly hazardous. The results seem to justify continued employment of this form of treatment. The percentage of cures persisting throughout five, ten, fifteen, and twenty years after operation is even higher than that following gastric resection; but this is not inconsistent, for undoubtedly the majority of the lesions treated by conservative operation were discovered while they were in the stage most amenable to treatment. It must also be remembered, however, that the results would be even better if cases were eliminated in which resection was impossible because of inaccessibility of the tumor.

In the more advanced cases of carcinoma of the stomach, including cases of linitis plastica, radical surgical removal of the growth offers the only hope of cure. Consequently, we advocate exploration in all cases unless irremovable metastatic lesions are known to exist. In general, the presence of implants on the rectal shelf, and demonstrable metastasis in the cervical lymph nodes or in the lymphatic structures about the umbilicus, are contraindications to operation. Although roentgenologic examination is of great aid in the diagnosis of carcinoma of the stomach, it cannot be relied on for determination of operability or inoperability in all cases. Even when the abdomen is open, the lesion may appear to be irremovable because of its attachment to the colon or pancreas; but after inflammatory adhesions have been freed, such a growth is often mobilized sufficiently to permit extirpation. Not infrequently, while the surgeon is making exploration in these cases, he observes lymph nodes that appear to be involved, and often they are in a position which precludes carrying out excision with a reasonable degree of safety. Such lymphatic structures, or even a distant nodular growth in the liver, may be of an inflammatory nature. Therefore, the presence of a nodule of indeterminate nature should not contraindicate removal of the primary growth if this can be accomplished satisfactorily. Furthermore, experience often has shown that after removal of the primary cancer the metastatic lesion may regress or at least remain quiescent for a considerable time.

Total gastrectomy probably could be carried out more often than it is; however, the high mortality, and the doubt as to the effect of loss of the entire stomach on the general physiologic processes, have deterred many men from attempting the operation. Several of the ten patients who underwent this operation at the clinic obtained relief for considerable periods; one of them for as long as four years.

In the majority of instances, some form of partial gastrectomy is the operation of choice. If the neoplasm is small and is situated in the pyloric portion of the stomach, the Billroth I operation may be employed; however, resection according to the Polya technique is applicable in a higher percentage of cases. The latter procedure has several advantages: it allows for removal of an adequate portion of the stomach and for wide dissection of the regional lymph nodes and other involved tissues. Furthermore, if recurrence does take place it usually occurs in the liver or other distant structures, and the patient does not suffer the distressing symptoms attending obstruction caused by recurrence of the growth in the stomach itself. Experience in the clinic, with partial gastric resection for carcinoma, seems to justify an optimistic attitude (Table 2).

Table 2.—*Results of Gastric Resection for Carcinoma*

Period Lived After Operation	Number of Patients	Percentage of Traced Patients
5 years or more	393	25.0
10 years or more	170	16.4
15 years or more	75	13.5
20 years or more	23	9.3

Although patients who have lived five to ten years after operation are justly considered cured, we operated on a patient who had a recurrence of gastric carcinoma twenty-one years after gastric resection. Recurrences have been known to take place after a period of years, but such an experience is the exception and not the rule. Furthermore, patients who live fifteen to twenty or more years after removal of a carcinomatous growth of the stomach usually have enjoyed normal expectancy.

One should not be content to treat only removable lesions, for it is possible to make life more comfortable for many of the more unfortunate individuals who possess lesions that cannot be eradicated satisfactorily. For example, metastasis to the liver of a patient who is in good general condition should not always preclude palliative removal of an ulcerated, infected gastric lesion. Such a procedure not only removes a painful, sloughing growth, but also circumvents an actual or impending obstruction. At times gastrojejunostomy for relief of obstruction is all that can be tolerated by the patient. This operation may be followed by resection of the growth at a later date, or it may constitute a purely palliative measure. It should be pointed out, however, that because of the poor state of nutrition of the gastric wall, healing is impaired and the mortality following gastrojejunostomy is high.

SARCOMA

Sarcoma is a comparatively rare gastric lesion; only seventy-three cases had been encountered at the clinic up to January 1, 1934. The symptoms of the disease are not sufficiently characteristic to allow the condition to be distinguished from carcinoma; consequently, in most instances the preoperative diagnosis is carcinoma. Partial gastrectomy, combined with roentgen therapy, is the only rational treatment if the growth is resectable, because the postoperative average duration of life of patients for whom only exploration was performed was six months. The operative mortality for the whole group was 12 per cent. The patients whose lesions could be removed were divided into two groups: those who had died since the operation and those who were still living. The average duration of life in the former group was eleven months, and in the latter, four years and four months; the longest survival was nine years. Although the results of treatment have not always been as satisfactory as would be desired, the prolongation of life which is brought about in some of the cases justifies the employment of radical resection when this can be accomplished without undue risk.

POLYPOSIS

The diagnosis of polyposis of the stomach is always difficult to make clinically because, when symptoms are produced, they may simulate those of any type of gastric tumor. The polyps may be single or multiple, and if multiple they sometimes involve the entire gastric mucosa. Balfour and Henderson reported a group of fifty-eight cases of benign gastric tumor, and noted that gastric polyp, comprising 20 per cent of the entire series, occurred more frequently than any other type of lesion. The lesions in cases of multiple gastric polyp are rarely malignant, whereas single polyps frequently undergo malignant transformation. In our experience, 50 to 60 per cent of single gastric polyps develop malignant characteristics; consequently, wide excision of the stomach adjacent to the tumor is the preferable procedure to carry out in their treatment. If the polyps are situated in the lower end of the stomach, resection of the Billroth I or the Polya type may be employed. However, in those instances in which the lesions are situated high on the posterior wall, or in the fundus, segmental resection of the stomach, or transgastric excision, often is all that can be accomplished.

SYPHILIS OF THE STOMACH

Gastric syphilis is not as rare as it has been thought to be. The reason for this is that the symptoms are easily confused with those of chronic ulcer, carcinoma, and hour-glass contracture of the stomach. Consequently, the diagnosis is usually made late in the course of the disease, unless phenomena of obstruction develop as a result of narrowing of the pyloric outlet. However, even when retention is present in cases in which syphilis is suspected, surgical treatment should be deferred until there is proof that adequate antisyphilitic treatment will not relieve the condition that is causing the obstruction. Young individuals usually respond to this therapy. In treatment of elderly patients, temporizing is not justifiable if the lesion is resectable, and especially if the symptoms are of recent origin, if there is a palpable mass in the epigastrium, if pus and blood are found in the stomach, and if there is occult blood in the stool. Even if an error has been made in the diagnosis, the surgeon who operated has acted wisely. Surgical treatment is clearly indicated in the presence of hour-glass contracture of the stomach; for the deformity once established is not only permanent, but probably will increase from further contracture of scar tissue.

TUBERCULOSIS OF THE STOMACH

Gastric tuberculosis is rare. In study of gastric material obtained at operation and at necropsy, the incidence among patients at the clinic has been only 0.34 per cent. The diagnosis is difficult to make because of the ease with which the disease may be confused with gastric ulcer and carcinoma. The gross appearance of the lesion may be that of an ulcer, a tumor, or diffuse scarring of the stomach. Radical resection of the involved portion of the stomach is the treatment that affords relief. Since the requirements are surgical, inability to arrive at an accurate differential clinical diagnosis is not likely to be as disastrous as it might be under some other conditions.

SUMMARY

Careful preoperative preparation has reduced the mortality of surgical procedures applicable to the upper part of the gastro-intestinal tract, and as a consequence of a supervised regimen after operation, better end-results have been obtained.

Satisfactory methods of solving many of the problems imposed by the presence of lesions in the stomach and duodenum now are available. Marked progress toward more complete mastery of the situations undoubtedly will be delayed until more is learned about the etiology and pathogenesis of the lesions and about the chemistry of the body.

Mayo Clinic.

ON THE SURGERY OF GLAUCOMA: MODE OF ACTION OF CYCLODIALYSIS*

By Otto Barkan, M.D.
S. F. Boyle, M.D.
and
S. Maisler, M.D.
San Francisco

Discussion *by A. C. Macleish, M.D., Los Angeles; Melverton E. Trainor, M.D., Los Angeles; A. Ray Irvine, M.D., Los Angeles.*

The observation, by E. Fuchs,[1] of hypotony, associated with choroidal detachment following cataract extraction, suggested to Heine[2] the thought of similarly softening the glaucomatous eye by establishing a communication between the anterior chamber and the suprachoroidal space through surgical means. He was encouraged in his idea by the knowledge, as shown by anatomical specimens, that in absolute glaucoma, with complete obliteration of the filtration angle, the suprachoroidal space remains patent for a long time, perhaps permanently so. He hoped that as in traumatic iridodialysis, the ciliary body or iris root usually shows no tendency to heal on again, the surgically detached ciliary body would also remain detached during the healing process, and that thus a permanent communication between the anterior chamber and the suprachoroidal space would be established, or that with the help of a myotic, at least a capillary cleft would remain, which would be sufficient to permit of outflow of aqueous into the suprachoroidal space.

HEINE'S INTERPRETATIONS

Heine's original idea has been supported by several facts. Thus in some cases after cyclodialysis, a flat peripheral choroidal detachment has been observed with the ophthalmoscope. It seemed questionable to him, however, whether the permanency of its action could be explained in this way. In those cases which have come to anatomical examination, because of the failure of control of tension, a reattachment of the iris root is, of course, found. But what of the many successful cases which constitute the majority? One such case has been examined anatomically, that of Elschnig.[3] Histological examination of the eye, the tension of which had been permanently normalized by cyclodialysis fourteen years previously, showed a free angle, patent Schlemm's canal and a communicating cleft between the anterior chamber and the suprachoroidal space within the area of operation. On the opposite, nonoperated side the angle was closed and Schlemm's canal mostly obliterated. Elschnig believes the formation of the cleft to have been the major agent in reducing the tension of this case. He does not, however, exclude reduced production of aqueous resulting from damage to the ciliary body as a possible factor, nor does he believe the freeing of the angle to have been a factor because the pectinate ligament (corneoscleral trabeculum) within this region appeared so sclerosed and compressed as to probably render filtration impossible. This case then shows that the success of the operation *may* depend upon a communication between the anterior chamber and the suprachoroidal space.

VIEWS OF OTHER AUTHORS

Some authors believe that the improved circulation within the iris vessels—these vessels had been bent at right angles by the peripheral iris adhesions and are straightened out by the operation—affords the opportunity for increased absorption of aqueous. Filtration through the scleral scar does not come into question. Others suggest that restitution of the filtration angle, by separation of the peripheral iris adhesions from the angle wall, or scraping off the pathological endothelium in the angle with secondary regeneration when the ciliary body heals on again, are factors. Heine feels this a possibility, but remarks that it would be a difficult thing to show anatomically and to disprove the presence of a capillary cleft in the region of the cyclodialysis.

We, therefore, do not yet possess a histological explanation of the action of cyclodialysis and must as yet content ourselves with the discussion of theories such as the ones mentioned above which deal with the reëstablishment of normal absorption or outflow. Other theories deal with the thought of reduced formation of aqueous through atrophy of the ciliary body following section of its nerves and vessels of supply (R. Salus,[4] Kraus[5] and Meller.[6]) According to E. Bunge,[7] such a partial atrophy of the ciliary body, which already shows some general atrophy due to the glaucomatous process, has not been accepted as proven.

MODE OF ACTION OF CYCLODIALYSIS STILL REMAINS AN OPEN QUESTION

The mode of action of cyclodialysis remains, therefore, an open question to date. The importance of arriving at the true explanation of the action of the operation is evident. Our surgical

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* Read before the Eye, Ear, Nose and Throat Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13–16, 1935.

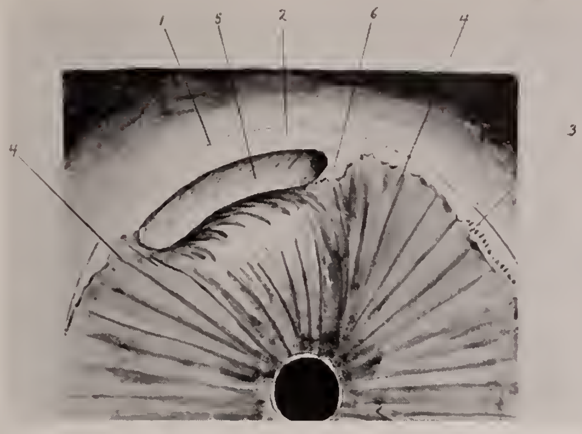

Fig. 1

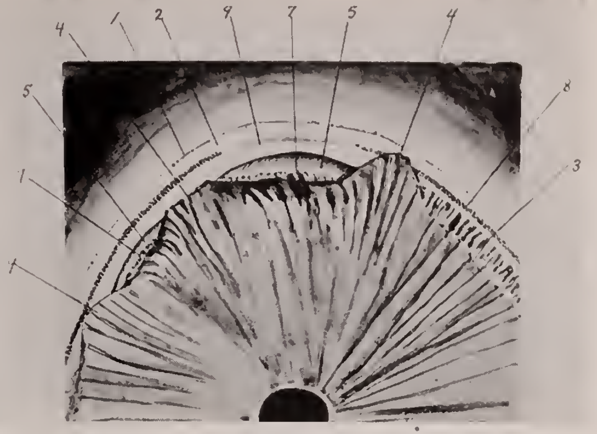

Fig. 2

Fig. 1—Showing open cleft extending from anterior chamber to suprachoroidal space.

1, internal annular ring of Schwalbe; *2*, angle wall; *3*, normal insertion of iris root, showing iris processes; *4*, peripheral synechia (adhesions of iris root to angle wall as result of operation); *5*, cleft showing inner surface of sclera; *6*, piece of membrane bridging over cleft.

Fig. 2.—Shows the trabeculum covering Schlemm's canal to have been scraped free by the spatula.

1, internal annular ring of Schwalbe; *2*, angle wall; *3*, normal insertion of iris root, showing iris processes; *4*, peripheral synechia (adhesions of iris root to angle wall as result of operation); *5*, cleft showing inner surface of sclera; *7*, reattachment of iris root to sclera; *8*, pores of corneoscleral trabeculum, covering Schlemm's canal, stopped with pigment granules; *9*, pigment-stained Schlemm's canal exposed to view; trabecular pigment granules have been scraped off by the spatula.

technique, as well as indications for operation and choice of case, would probably be materially influenced and improved by the knowledge of what we are trying and are able to achieve.

It was with this purpose in mind that we examined the angle of the anterior chamber of a series of cyclodialized eyes with the Koeppe contact glass, Vogt's carbon slit lamp and the binocular corneal microscope. The method which we have devised will be published in the near future. For the present, let it suffice to state that with this technique a truly beautiful picture of over forty magnifications of the whole circumference of the angle and its constituent parts can be obtained such as has not been afforded by any of the gonioscopic methods used up to the present time.

AUTHORS' ANALYSIS OF CASES

We have examined to date fourteen of our cyclodialysis operations with this method. Of eleven cases in which the operation successfully normalized the tension, all show a detached iris root and a cleft between the iris root and the scleral wall through which aperture one can see the scleral wall and can sometimes look into a cavern extending 6 millimeters or more into the depth posterior to the scleral spur. The further reaches of this apparently bottomless pit are lost from view. Fig. 1 is an example of such a case. This, as well as the other figures, gives a diagrammatic composite view of what is seen in different lines of regard. Fig. 1 illustrates the case of Mr. L., age sixty-two, chronic simple glaucoma, with a tension of fifty-eight, McLean, while under the influence of three hourly instillations of pilocarpin 2 per cent. Cyclodialysis (down and out) performed three years ago had normalized tension (under thirty, McLean) to date. The operation formed the cleft (at five) and, as is usually the case, some traumatic peripheral iris adhesions (at four) to either side of the cleft. The angle is open throughout the rest of the circumference.

Of the fourteen eyes examined, all of the successful cases show this characteristic picture of a surgical cyclodialysis, or detachment of the iris root along with a communication between the anterior chamber and the suprachoroidal space. The three unsuccessful cases on the contrary all show a reattachment of the iris root to the scleral wall. Upon reoperating one of these with formation of a dialysis or cleft, the second operation successfully normalized tension. Of the other two, one was later operated with iridencleisis and the other was not reoperated as the tension remained nearly normal, function has been retained to date and patient was averse to further surgery. It may be mentioned incidentally that the site of reattachment in the unsuccessful cases was more often than not posterior to its original anatomical reattachment, thus constituting a retroplacement of the iris root. As in these latter cases, absence of communication between the anterior chamber and the suprachoroidal space was a constant finding, this would seem to be the reason for the failure of the operation to reduce tension. The following case history serves as a good example of this.

REPORT OF CASE

Case 1.—Mrs. H., age 62, hypertension of the left eye, McLean, 65, which was normalized by cyclodialysis operation (below and out) for eight months, after which hypertension returned and gradually increased. Examination showed, as in Fig. 2, the characteristic cleft or aperture between the scleral spur and iris root (at 5). However, after prolonged examination, we discovered that the iris root had healed on to the scleral wall two or three millimeters behind its original anatomical insertion (at 7). The diagram represents a composite picture of what is seen at different angles of regard, and shows the dialysis and where the reattachment of the iris root has taken place. A

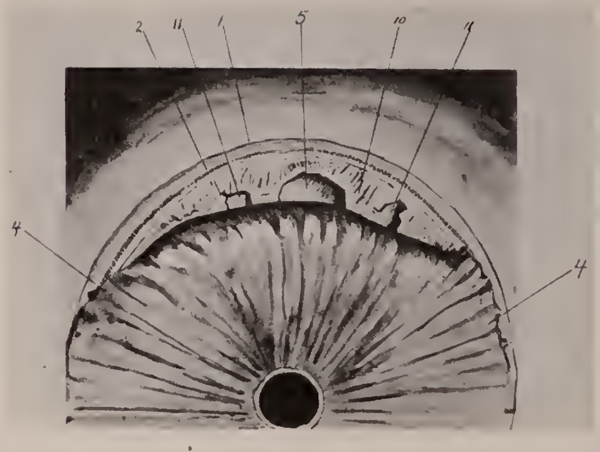

Fig. 3

Fig. 3.—Cleft partly bridged over by a thin membrane. *1,* internal annular ring of Schwalbe; *2,* angle wall; *4,* peripheral synechia (adhesions of iris root to angle wall as result of operation); *5,* cleft showing inner surface of sclera; *10,* membrane bridging over cleft; *11,* fenestrations of membrane permitting of communication between the anterior chamber and the suprachoroidal space.

second cyclodialysis was performed up and out with immediate reduction of tension which has persisted to date (ten months). The second cyclodialized region shows a characteristic cleft extending from the anterior chamber to the suprachoroidal space as illustrated in Fig. 3. Here the cleft is not completely open as in the case illustrated in Fig. 1, but is bridged over by a very thin membrane (at 10) which, however, is incomplete and through its fenestrations (at 11) one can see the scleral wall (at 5) and look into the suprachoroidal space showing that there is a definite communication.

Fig. 2 shows the trabeculum covering Schlemm's canal to have been scraped clean by the spatula. That this could not have been an active factor in reducing tension is proven by the recurrence of tension when the cleft closed—the rest of the picture remaining unchanged.

SURGICAL CONCLUSIONS

In the fourteen cases examined to date, tension has been normalized in all those where the characteristic surgical dialysis, as shown in Fig. 1, has been established. In those cases, on the other hand, in which the iris has been reattached (reattachment to the original insertion or retroplacement), there has been no reduction of tension or the effect has been transitory and lasted only as long as the communication remained open. The disposition to closure we have found to be due to the dialysis being too small in extent, thus favoring adhesions of the contiguous surfaces, or to trauma during operation which creates raw surfaces and stimulates healing of the surfaces through exudation, etc. Thus, for instance, at those points where Descemet's membrane has been traumatized by the spatula, peripheral anterior iris adhesions are seen to form counteracting the very object of the operation. Trauma encourages exudation and formation of iris adhesions in the angle just as it induces posterior adhesions of the pupillary border of the iris to the lens, more especially in that sector of its circumference which corresponds to the sector of the iris which has been dialized. The tendency to exudation and formation of adhesions seems also to vary with the individual.

FACTORS MAKING FOR A SUCCESSFUL CYCLODIALYSIS

Successful achievement of a permanent dialysis is favored by the following factors:

First, separation of the ciliary body with the spatula through a sufficiently large portion of the circumference (two-fifths to one-half).

Second, trauma must be reduced to a minimum.

These objects are promoted by making the scleral incision further posterior and even more diagonal than is customary, thereby facilitating the entrance of the spatula in the tangential plane, as also its rotation through a large arc. Perhaps also the rapid closure of the diagonal valve-like incision favors reëstablishment of the anterior chamber and thus tends to promote the maintenance of the cleft by keeping its surfaces apart. As we believe that loss of aqueous and hemorrhage into the anterior chamber tend to encourage reattachment of the dialysis, we feel that one should attempt to preserve the anterior chamber and prevent hemorrhage. Retrobulbar injection of 1 cubic centimeter of novocain with an extra drop of adrenalin, avoidance of vessels during the approach, complete hemostatis at the site of incision by means of adrenalin wicks, and if necessary, touching the bleeding point with the actual cautery and immediate application of pressure, after removal of the spatula, will in large measure prevent hemorrhage into the anterior chamber in most cases even in inflamed, very hard, chronic glaucomatous eyes, operated under gas and oxygen.

We have noticed that such slight amount of hema as may appear in the anterior chamber has been of venous color. We believe it in part to be sucked in from the conjunctival wound and that there is never occasion for arterial hemorrhage unless it be in the case of marked general vascular disease with arterial degeneration. Even in these we cannot but feel that it is avoidable. Furthermore, in our opinion, postoperative instillation of mydriatics, which is advised as a routine procedure to prevent formation of pupillary synechiae, should also, whenever possible, be avoided. It will be found that if the operation is performed with sufficient lack of traumatism, immediate mydriasis is often not necessary. Mydriasis, we believe, may favor closure of the dialysis by approximating the base of the iris to the site of its previous insertion and in cases of very shallow chambers may also occlude the rest of the angle along with the cyclodialized part, as we have had occasion to observe, and precipitate an acute attack of glaucoma. We have further found that when the dialysis cleft is very great in extent, hypotony is apt to ensue with gradual cataract formation or acceleration of an incipient one.

THE RESULTING ACTION OF CYCLODIALYSIS

Theoretically, the question has not yet been settled whether the dialysis acts by disturbing the function of the ciliary body through severance of its nervous and vascular supply with consequent atrophy and reduced production of aqueous, or whether it acts by permitting outflow of aqueous through the cleft into the suprachoroidal space where it is absorbed. As a result of our observations, we cannot but believe that the question must be answered in the latter sense. In every case of cyclodialysis, the operation has severed the same nerves and vessels and cut the ciliary body off from its supply whether successful in reducing tension or not, whether establishing communication between the anterior chamber and the suprachoroidea or not, whether or not causing permanent dialysis. In those cases which showed the dialysis, tension was always found to be reduced; the reduction of tension was immediate (that is, within twenty-four hours) and remained so. In the unsuccessful ones tension was either not reduced at all or after initial reduction it increased after a time when it was found that the ciliary body was reattached. The only difference between the successful cases and the failures would then seem to be that in the former a dialysis or cleft persists, whereas in the latter, reattachment occurs.

SUMMARY

Our investigations show that the establishment of communication between the anterior chamber and the suprachoroidea is the mechanical sine qua non in the successful action of the operation in most if not all cases. This is of evident surgical and clinical importance. In practice, the method has the further advantage of enabling us to determine the reason for lack of effect of the operation in a given case and of remedying it by repeating the operation until we are satisfied that a permanent dialysis and communication has been established.

490 Post Street.

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DISCUSSION

A. C. Macleish, M. D. (1104 Brockman Building, Los Angeles). — I have read Dr. Otto Barkan's paper on cyclodialysis with much interest, for I have not come in contact with the operation for many years, and had thought that it was generally discarded. His percentage of success is due, I am sure, to a technique considerably better than that of earlier days. The majority of cases I have seen, and many of those I had opportunity to follow up, were decidedly disappointing in results, despite that these were all operated on by men of note in ophthalmology.

It might be interesting to know that in 1911, when working under Dr. Freeland Furgus in Glasgow (Fergus-Elliott trephining), I saw him do several by laying down a flap, trephining a scleral button, completing a cyclodialysis, and replacing his flap with suture. In only one case did I see the after-results, and that showed a subconjunctival bleb over the area of trephining well up on the globe, and normal tension resulting. In most of the other cases I saw there was much hemorrhage as a complication, and this factor, as Doctor Barkan points out, undoubtedly was productive of failure in many cases. Again, our methods of anesthesia were not practiced then and the patients suffered much more.

I have never done a cyclodialysis for several reasons. First, I have had a dread from all my teachings of the ciliary region. Secondly, the results I have seen, and the complications, did not appeal to me. Thirdly, I have not the courage to try it. As I grow older, I expect I am growing more timid.

I once heard in London at Moorfields, when I was in attendance there in 1912, a long, informal discussion on cyclodialysis and, if I remember correctly, the explanation of the mode of action in the operation, although many theories were advanced, did not materialize. Now I find we are still in *status quo ante.*

I should very much like to have the opportunity some time to see Doctor Barkan's operation.

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Melverton E. Trainor, M. D. (924 Pacific Mutual Building, Los Angeles).—The success obtained by the authors in the fourteen cases reported, with eleven cures, is about 80 per cent, which is as satisfactory as can be obtained with any manner of treatment for glaucoma.

As brought out by the authors, the success of the operation depends on the size of the cleft after healing is complete.

The amount of aqueous produced each minute is from 1½ to 2½ cubic millimeters. Therefore, the necessity for the detachment of about halfway round of the ciliary body.

I would like to know just how this aqueous is disposed of, whether it passes directly into the capillaries, is taken up by the lymph spaces, or is absorbed by a new lining of the cleft by endothelial cells?

The success of the operation is due to the greater absorbing power, rather than an interference with the production of aqueous.

The general opinion of cyclodialysis heretofore has been that it is not a cure, but must be followed by miotics. That it is of no use in acute, and chronic uncompensated, glaucomas, nor is it satisfactory in secondary glaucoma following cataract; but in compensated glaucoma it is indicated, especially in early cases. Personally I have had better results in all cases with iridencleisis.

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A. Ray Irvine, M. D. (1142 Roosevelt Building, Los Angeles).—It seems to me that the conclusions in this paper are well founded. The success obtained in these operations is undoubtedly due to the mechanics, relieving obstruction and establishing a free flow of aqueous between the anterior chamber and the suprachoroidea. The operation of cyclodialysis, especially in aphakic cases, is the one of choice. We have had a number of cases at the Los Angeles General Hospital in which tension has recurred, even though in all cases a wide separation of the root of the iris has been made. In these cases a closure of the cleft at the chamber angle probably took place.

⁂

Doctor Otto Barkan (Closing).—The fourteen cases mentioned in this publication were selected from our surgical material solely because of their individual adaptability to the investigation of the question at hand, namely, the mode of action of cyclodialysis, and not for statistical purposes nor as an argument in favor of the operation. The percentage of successes in this small group happens to be high and, as a matter of fact, we do favor cyclodialysis as it is performed today, over other surgical procedures in certain types of chronic glaucoma.

In Professor Elschnig's clinic in Prague, cyclodialysis has been the favorite operation for chronic glaucoma for many years; in other localities external filtering operations are performed, to the exclusion of almost all other operations. There is, as yet, no royal road to surgical success in chronic glaucoma. Our surgical knowledge and indications are very incomplete, and how could it be otherwise until we know more of the physiopathology of the circulation of the intra-ocular fluid, and of the pathogenesis of glaucoma?

We believe that gonioscopic studies of the living angle in relation to surgery, such as have been done by Troncoso and such as we are engaged in with our binocular-microscopic method, will enlighten us and add considerably to our surgical knowledge and practical management of glaucoma.

INJURIES OF THE POSTERIOR URETHRA*

By Harry W. Martin, M.D.
Los Angeles

Discussion *by Robert V. Day, M. D., Los Angeles; Arthur B. Cecil, M. D., Los Angeles; George G. Reinle, M. D., Oakland.*

THIS paper will deal only with certain types of injuries to the urinary tract. Injuries to the kidney and ureter have been excluded, and the classical bladder rupture only incidentally considered.

CLASSIFICATION OF INJURIES OF POSTERIOR URETHRA

For convenience, I wish to make the following arbitrary classification:

1. The so-called "straddle" injury in which the membranous urethra is wholly or partially severed.
2. Classical ruptures of the bladder produced by moderate impacts over a distended bladder, especially in a patient who has imbibed alcohol immoderately during several hours preceding the rupture, and as the consequence of the alcoholic narcosis and anesthesia a greatly distended bladder results, with an easily produced rupture.
3. Instrumental rupture, either to the bladder or posterior urethra.

The above types are dealt with only incidentally, since diagnosis and treatment have been adequately described in the average textbook on urology.

4. This next class of injuries, to which I wish to call your attention, are exceedingly varied in their combinations and complications, and their textbook description and suggested methods of treatment quite inadequate. This is a large group, and therefore I wish to stress their management, especially those of the posterior urethra, produced by crushing force or violent impacts, sufficient to cause the various combinations and types of fracture of the pelvis.

EARLY RECOGNITION IMPORTANT

While the incidence of fractured pelvis is considerable, on the other hand only a comparatively small percentage of such accidents are complicated by urethral or bladder injuries. However, when present, it is of the greatest importance to recognize them early, and promptly institute adequate surgical measures for the purpose of drainage so as to prevent further leakage into surrounding tissues. If in doubt, always institute drainage. Furthermore, in every area, where urinary leakage may seem to be present or even suspected, adequate drainage should be provided. Even unnecessary drainage is productive of no serious results, unless undue shock is already present. If shock is excessive, such shock is probably due to concomitant injuries in addition to the urethral injuries. Not infrequently one or several of such associated injuries as the following exist: skull fracture, fracture of the upper and lower limbs anywhere between the foot or hand and the hip or shoulder joint; fractured ribs and injury of intrathoracic organs; injury of one or more of the abdominal organs, including the spleen or liver. Injury to the rectum is not uncommon and is a most serious occurrence.

SHOCK

Extreme shock as a primary manifestation is usually not observed, if the injury is confined to the urethra or kidney. It is often excessive, however, in complete intraperitoneal rupture of the bladder.

If excessive primary shock is present, obviously any operative measure will probably have to be delayed or postponed; or, if severe and progressive, any surgical measure whatever may be positively contraindicated. Obviously, we believe that in such cases it is unsound practice to resort to surgery when it can hardly accomplish anything more than hasten the end. In these cases the variety and combination of associated injuries may be such that the soundest and most experienced judgment is requisite in order to decide on the wisest course. If a urologist is in charge, he should freely avail himself of consultations with general surgeons, chest surgeons, brain surgeons, etc., as indicated in each case. Fortunately, modern intravenous urography with diodrast, and especially retrograde urethrography with the same non-toxic and non-irritating chemically stable radiopaque solution, has proved of enormous help in precise objective diagnosis in cases of injury to the urinary tract.

FRACTURED PELVIS

In patients with fractured pelvis, there may be no actually demonstrable major ruptures in either the bladder or urethra, as is visualized at operation or determined by preoperative urography, but nevertheless, punctures may be present with slight leakage of urine and subsequent development of abscess. On the other hand, in a certain minority of cases—but still quite an appreciable number—the posterior urethra especially, and the bladder at times, are visibly or palpably punctured by a spicule of fractured bone, or torn, or severely crushed, and yet there can be demonstrated no actual leakage on the operating table. When the posterior urethra is injured so that even a little urine leaks out around it, traveling more or less in the fascial planes, together with bloody extravasation, a deep abscess of great size may develop (Fig. 1). Yet its presence and extent cannot be definitely determined until many days have elapsed, unless we are constantly on the alert. When in doubt, extravasation should be assumed as being present or potentially so, and liberal drainage instituted.

Suspicion or proof of such injury rests on urinary retention, bloody urine, inability of the

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* Read before the Urology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

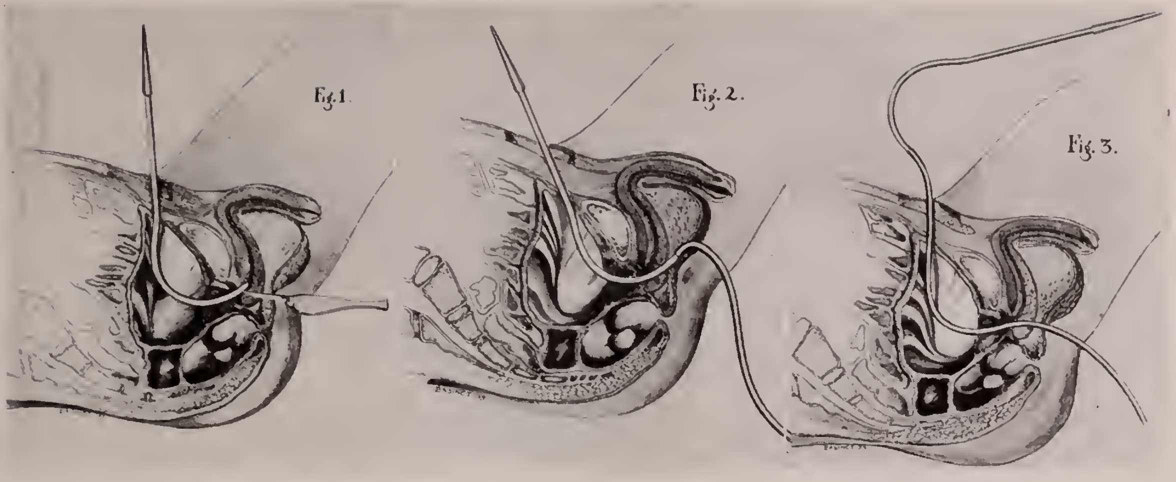

Fig. 1.—Button-holing the bulbous urethra over tip of Guiteras Retrograde Staff.

Fig. 2.—Tip of Guiteras Retrograde Staff is pushed through button-hole in urethra and out beyond the skin of perineum, whereupon a piece of pure gum tubing, 7 or 8 mm. in diameter, is pushed well over tip of staff like a sleeve.

Fig. 3.—Retrograde is withdrawn, carrying the tubing out through suprapubic incision on to the hypogastrium.

urologist to pass a catheter, ecchymosis and tumefaction over the perineum or suprapubic region, scrotum or shaft of the penis. Evidence supplied by a cysto-urethrogram, and rectal palpation, abdominal palpation, or bimanual palpation, with finger high up in the rectum and the hand over the hypogastrium, may reveal tumefaction anywhere between the abdominal hand and the finger in the rectum, giving confirmatory evidence. Shock may be due to a number of factors, and the determination of the principal causative factor in producing the shock is important; each case should be individualized in this study. Concomitant injury to the rectum, or one or more abdominal viscera, is perhaps the most important cause of shock, especially severe shock.

TREATMENT

This consists in 1. Ample drainage, not only of the bladder, but of every area where urine may have leaked into the tissues, even in small amounts. Many times urinary infection has existed previous to the injury. Even if uninfected, urinary extravasation invariably leads to serious infection, by tissue necrosis. Prepare the patient for both suprapubic and perineal operation by shaving the abdomen, the pubis, penis, scrotum, and perineum; before draping, paint all these areas with mercurochrome or other bactericidal solution. The recumbent position on the operating table is ordinarily, we believe, reasonably satisfactory. The lithotomy position, especially if extreme, is not recommended in case of fractured pelvis for the reason that the fractured ends of the rami, are apt to override and cause further trauma to the soft parts, even causing fragments to further pierce the bladder or urethra. A semi-lithotomy position with the knees over Bierhoff's crutches, is the ideal position for working both from the perineum and the hypogastrium. A midline abdominal incision is made over the hypogastrium. It is seldom justifiable to explore the peritoneal cavity, unless there is definite evidence of injury to one or more of the abdominal viscera; in a borderline case the presence and assistance of a qualified abdominal surgeon should be assured. If, as rarely happens in practice, it seems necessary to explore the abdomen, and no intra-abdominal injury is discovered, the peritoneum only is closed and attention then directed to the urinary tract injury. The bladder is opened suprapubically in the classical manner. Inspect the prevesical area; after opening the bladder as high up toward the retracted peritoneal fold as possible, palpate the inner wall carefully and thoroughly for evidence of rupture. If tears are discovered, better exposure may be needed. If not, one should proceed to introduce a Guitterez retrograde staff through the suprapubic opening into the vesical neck, and out through the prostatic urethra into the bulbous urethra; an incision is made in the perineum over the tip of this retrograde staff. (Fig. 1.) The staff is then pushed through this buttonhole opening in the perineum, and a rubber catheter, or a piece of rubber tube the size of a 22 Fr. catheter, pushed well over the tip of the staff like a sleeve (Fig 2); it is encircled and fastened on the staff with a silk ligature tied tight. The staff is then withdrawn, carrying the tube from the perineum into the bladder and up through the suprapubic bladder incision onto the skin where it can be visualized. (Fig. 3.) The rubber tube is released from the tip of the staff and is transfixed with heavy twisted silk—size 12 or 14—and the silk knotted to form a loop. The rubber tube is then withdrawn by pulling on that portion still projecting in the perineum, until the upper end is resting on the trigon (Fig. 4), or the upper end of the tube may be sutured to the skin edge of the suprapubic incision as in Fig. 5. The silk loop is then fastened with a silk suture to the skin of the abdominal incision, giving just enough "rope," as it were, to prevent the rubber tube being possibly withdrawn from the bladder entirely. A suture through the tube into the skin at one edge of the perineal wound will give additional insurance of remaining where it is placed. A Pezzer tube, size 22 Fr.,

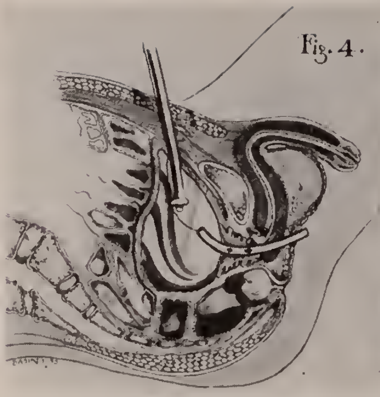

Fig. 4.—Tubing is cut off and size No. 14 heavy braided silk is sutured into end of rubber tube (with side-holes cut out). Tube has been withdrawn so that it rests on the base of the bladder and held there with the heavy silk fastened to the skin of the suprapubic incision, and the other end anchored with one suture to the skin of the perineum. No. 22 Pezzer catheter in place.

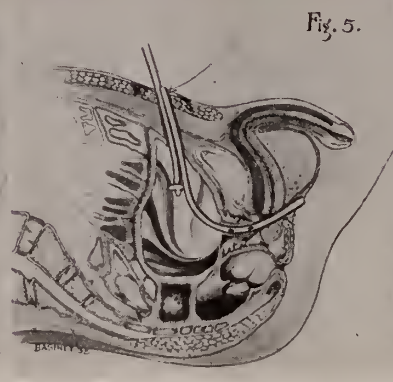

Fig. 5.—Alternate method of having rubber tube fastened by one suture to edge of suprapubic skin incision and by another to the skin of perineum. Pezzer in place.

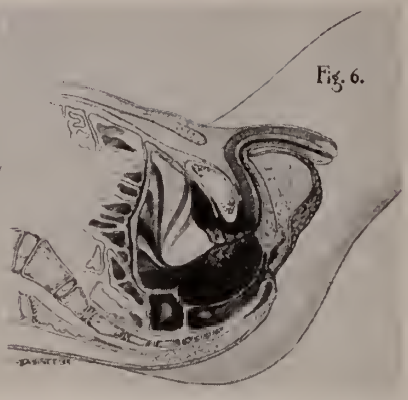

Fig. 6.—Abscess which has developed because of neglect to drain perineally. This not infrequently occurs unless such auxiliary drainage is instituted.

is then sutured in for drainage of the bladder itself. (Fig. 4.)

If there is any ecchymosis or tumefaction of the perineum, scrotum or shaft of the penis, these areas should be liberally incised, as in any case of urinary extravasation.

Any concomitant actual ruptures of the bladder should of course be repaired in the classical manner. Hemostasis should be attended to by ligature, gauze-packing, or both, as needed. The bladder should be closed water-tight around a 24 Fr. Pezzer catheter draining suprapubically. (Larger sizes are unnecessary, and produce discomfort.) A cigarette drain should be inserted into the prevesical space of Retzius. With the completion of such a surgical procedure, absolute drainage has been insured to all potentially infected areas, viz., the prevesical space of Retzius, the bladder, the posterior urethra and peri-urethral tissues in case of puncture of the posterior urethra, perineum, as well as the tissues (when indicated) external to Buck's fascia and its extensions. The ischiorectal fossa should be freely incised and drained if indicated. If necessary, the incision in the ischiorectal fossa is connected by tunneling, with the midline incision in the perineum, that is, by pushing through a heavy blunt forceps followed by a piece of small Penrose drain which is sutured in place.

SUMMARY

The points to be stressed are: Puncture, tear or rupture of the posterior urethra allows leakage of urine into important surrounding tissues, which become infected, thus resulting in sepsis, abscess, often of tremendous size, tissue necrosis, and frequently in ultimate death. These facts are frequently ignored, and the proper drainage, therefore, not instituted. The bladder is naturally attended to early, because the symptoms are early and pronounced, and the textbooks have emphasized its necessity, but pelvic leakage from tears in the posterior urethra is frequently neglected.

All drains should be anchored to the skin with reasonably heavy, non-absorbable sutures such as silk, and left in for an ample time, at least ten days to two weeks. Nature will repair the damage in nearly every case if drainage is ample from every area, especially the tissues surrounding the posterior urethra, where the urinary tract has been traumatized.

Except for straddle injuries, a primary attempt at an open and visualized operation through the perineum is ordinarily unsatisfactory in these cases, and for several reasons. The lithotomy position is not advisable because of a fractured pelvis. There is no telling what damage the spicules of fractured bone may produce by an exaggerated lithotomy position; and if the lithotomy position is not exaggerated, the exposure is poor. Not infrequently in these cases there is considerable injury to and a marked slipping at sacro-iliac synchondrosis. There is also so much ecchymosis and discoloration that tears are difficult to visualize or find. Moreover suture of urethral tears are ordinarily unnecessary and superfluous, since they seldom hold. Primary repair of these urethral tears has been overstressed.

Draining perineally is essential: but this can be accomplished by the retrograde method described above much more safely in a fraction of the time it takes to perform a careful perineal dissection. The additional suprapubic drainage alone is by far the preferable route. Hence, combined method takes less time, insures drainage, and obviates the necessity for placing the patient in the exaggerated lithotomy position. In case of inadequate drainage, an abscess not infrequently forms. (Fig. 6.)

Traumatic strictures, as everyone knows, are most difficult and rebellious to dilatation and tend strongly to recontract, even if successful dilatation seems to be accomplished at times. Much of this scar can be prevented if early and ample drainage is instituted, for the reason that part of this excessive sclerosis is due partly to infection and partly to infiltrates—both cellular and serous—and early drainage is the prophylactic par excellence for both.

REPORT OF CASES

Case 1.—Male, aged 35, fell astride a water pipe, from a height of only two feet. Only a few drops of bloody urine were passed, and for two days nothing was done. In two or three days, swelling in the perineum was noted. On the fourth day, indwelling catheter drainage was instituted; at the end of seventeen days he was referred to an urologist in a metropolitan center, but the perineal abscess formed burst spontaneously en route to the city. He was drained widely in the perineum. Perineal abscesses recurred over a period of several months. Meanwhile the urine became fetid, the bladder irritable and would hold only about one ounce. A cystostomy was performed and suprapubic drainage maintained for six weeks, at the end of which time the tube was removed and the bladder opening allowed to close. Meanwhile the perineal sinuses had healed.

When I first observed him months later, he had a contracted, thickened bladder, with a maximum capacity of 25 cubic centimeters and absolutely putrid urine loaded with pus, streptococci, staphylococci, and bacillus proteus. One kidney was a fibrous pus sac and the other pyonephrotic. He died of sepsis fourteen days following drainage of the pyonephrosis. Previous drainage by ureteral catheter had been unsuccessful. Although we have no means of ascertaining the facts, it is not likely that this patient had a latent urinary infection at the time of injury. On the other hand, the important procedure of adequate drainage at an early stage of his observation would probably have made possible a better clinical result, and the saving of much money by the insurance company.

* * *

Case 2.—Male, aged 18, was injured when his automobile, traveling at excessive speed, hit a telephone pole. He sustained a fractured skull, a fractured arm and ankle, besides multiple fractures of the pelvis. A catheter was introduced easily and, so it was stated, clear urine was obtained. Two weeks later, it was also stated, there was evidence of urinary extravasation over the hypogastrium, at which time a urologist was consulted and suprapubic cystostomy was performed. In justice to his surgeons, earlier cystostomy was considered; but the extreme shock with a systolic pressure of 55, constitute the reason for not performing the cystostomy drainage sooner.

Infection was present and persisted until his death, two and one-half years later. In the interim the patient had undergone many operations; one kidney had been nephrotomized twice, and the opposite kidney once, for calculosis, recurrent each time. Two or three operations (unsuccessful) had been performed for the restoration of the deep urethra. Had early drainage—within twenty-four or forty-eight hours—been instituted, probably his serious and fatal urinary infection would have been prevented.

* * *

Case 3.—Male, aged 35, automobile accident, multiple fractures of the pelvis. Injury to urinary tract. The patient was promptly drained suprapubically by cystostomy, but not drained perineally. The patient was septic, and about two weeks later perineal drainage was instituted, releasing several hundred cubic centimeters of purulent fluid. Meanwhile, widespread sloughing of skin and deeper tissues had resulted. The patient recovered, but with much permanent damage to a widespread anatomical area, most of which could have been avoided. The patient should have had ample perineal drainage, in addition to the suprapubic cystostomy.

* * *

Case 4.—Male, aged 40. Automobile collision, with resulting fractured pelvis and injury to urethral tract. Cystotomy was performed early, but perineal drainage was not done. One week later perineal operation was performed, with escape of a large amount of purulent fluid. Meanwhile, much permanent damage to the urinary tract had resulted which probably could have been obviated had perineal drainage been instituted at the time of the suprapubic operation; besides the sepsis incurred and an almost intractable stricture also resulted. Necrosis and virulent infection ensues rapidly where the drainage has not been adequate.

COMMENT

The above cases are excellent illustrations of insufficient drainage. These case reports can be multiplied many times over. The repeated examples of intense tissue sepsis, with resultant abscess formation, severe stricture, tissue necrosis, and eventual loss of life, drive home the need of sufficient drainage by the combined suprapubic perineal method. The patient's life is made more tolerable; his permanent results, if he survives, are better and the complications yield more readily to the proper follow-up therapy. It must also be remembered that the proper handling of the lower urinary tract will obviate such sad upper urinary tract complication, as shown in Cases 1 and 2.

Besides the infection, permanent filiform strictures result in patients who survive. We have clinical case records of many patients with filiform strictures resulting from inadequate treatment, especially drainage at the time of injury. These strictures are very resistant to all forms of therapy.

6253 Hollywood Boulevard.

DISCUSSION

Robert V. Day, M. D. (1930 Wilshire Boulevard, Los Angeles).—Many articles have appeared in the journals and textbooks on traumatic rupture or severing of the urethra. Most of these, however, deal with the so-called straddle injury, and simply follow out or copy those written fifty years ago. Almost invariably these articles had little or nothing to say concerning urethral trauma associated with fracture of the bony pelvis. Up to the last twenty or twenty-five years, fractured pelvis was relatively uncommon, except in connection with certain trades or occupations such as mining, etc. But during the last twenty years especially, due to the intensive industrialization of the nation and especially due to automobile accidents, fracture of the pelvis has became a quite frequent occurrence, and a certain percentage are complicated by severe urethral trauma. Dealing with such cases in the orthodox manner recommended for straddle injuries is, unfortunately, the method usually followed. As a sequel, the end-results have often been poor, not to mention the fact that some probably unnecessary fatalities have occurred. When the methods proposed and practiced by Doctor Martin have been followed, one may expect the best possible results. Many of these injuries are so severe and complicated by injury to other important organs, both in the vicinity of the prostate and also anatomically remote, that there is bound to be some mortality; but my experience leads me to feel very sure that Doctor Martin's procedure gives by far the best end-results and the lowest mortality rate. If ample drainage is carried out both suprapubically and perineally, and maintained, the tears and ruptures usually take care of themselves unless the urethra is completely severed transversely; in which case, of course, it is necessary to suture the roof of the urethra only. Too much suturing in these soft, contused ecchymotic tissue defeats its own purpose. With multiple fractures of the pelvis, placing the patient in the exaggerated lithotomy position is not the best practice when it can be avoided.

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Arthur B. Cecil, M. D. (1016 Pacific Mutual Building, Los Angeles).—Doctor Martin has made a genuine contribution to urology. With the frightful increase in automobile accidents resulting in injuries to various parts of the body, injuries of the urinary tract have become almost clinical entities to be classified with the various well-known diseases. The posterior urethra is, however, exceedingly well protected, and for this reason the average surgeon sees only an occasional case of traumatic injury of this region. All the more important is Doctor Martin's paper. His advice, to freely and early drain after these injuries, is, of course, correct. The trouble is in diagnosing the condition early, particularly when the patient is in great shock. Doctor Martin's technique for draining this region by suprapubic drainage, and by retrograde perineal drainage, is a very valuable suggestion. I feel that all urologists are tremendously indebted to him.

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George G. Reinle, M. D. (204 Dalziel Building, Oakland).—Doctor Martin's contribution on injuries of the posterior urethra has covered the subject thoroughly and well. That he has not been able to advance anything new is of small moment to the urologist. Its value lies in what, times without number, this speaker has conceived to be the paramount duty of the special worker in any and every field of medical practice. I refer to the latter's obligation to the profession in general. And this, I take it, is what the author has mainly in mind.

In season and out, and in whatever way he can and through whatever medium he finds available, the man who has acquired knowledge through limiting his work to a narrow field, not common property, is duty bound to warn the general worker of certain obligations he must not hesitate to perform.

In rupture of the urethra the main danger confronting the nonspecializing worker, due to the tendency to urinary obstruction, extravasation, or the formation of a fistula, is that he may not early enough realize the gravity of the situation.

Lest it may not be to the front of every medical man's mind, it cannot be too often brought to his attention that urinary extravasation does have a 50 per cent mortality rate. If, therefore, every other patient treated either timidly or expectantly is going to die, the specialized worker, should he not harp upon the subject, would be derelict in his duty and unworthy of the burden laid upon him as a coöperator in the common field devoted to the conservation of life.

This, then, seems to me to be the great and significant service the author of this paper has performed. I congratulate him upon having conveyed a message and a warning skillfully, adequately, and soundly. It is to be hoped that the paper will be widely read, and that the recommendations will be followed without hesitation; for to delay is to sentence the patient to death, which with courage might have been avoided.

AGRANULOCYTIC ANGINA*

By W. H. Johnston, M.D.
Santa Barbara

Discussion *by S. v. Christierson, M.D., San Francisco; Frank A. Burton, M. D., San Diego.*

THE term agranulocytosis was first used, and the syndrome first described as a clinical entity by W. Schultz[1] in 1922. Friedemann[2] proposed the name agranulocytic angina—a term now frequently used in this country. Various other terms, among them malignant neutropenia and granulocytopenia or granulopenia, have been suggested to describe the characteristic blood picture of this syndrome. While Schultz[4] was not the first to see this type of cases, "he realized that the cases which he reported differed from the usual instances of angina, on the one hand, and from the recognized cases of leukopenia on the other."

EARLY LITERATURE ON THE DISEASE

Ridpath[32] reviewed the history of this syndrome, and found that references in the literature began in 1857. It was not until 1902, however, when Brown reported a fatal case, that any decided interest was manifested in the disease.

Schultz,[4] in 1931, described agranulocytosis as an acute febrile disease, with lesions of the mucous membrane of any part of the intestinal tract from the esophagus to the anus; the mucous membrane of the mouth and pharynx, and in the female the vulva and vagina, which are often involved. The characteristic blood changes are a marked leukopenia and the complete or almost complete disappearance of the granulocytes with little change in the red cell or platelet count.

Taussig and Schnoebelen[6] collected 334 cases from the literature. Of these, 226 occurred in females and 104 in males; 74 per cent showed inflammatory lesion in the throat and 40 per cent occurred in the age period from 40 to 60. In 1930, Stocké[5] collected eighty-eight cases from the literature, and of these, 61 per cent were of the "true" type described by Schultz.

Kracke,[7] in 1932, collected 250 cases with a mortality rate of 85 per cent, and the ratio of females to males was four to one in his series.

Stewart, Tocantins, and Jones,[8] in 1933, tabulated 176 cases with special reference to the bacteriological findings. The total mortality was 85.2 per cent. Blood cultures were positive in 38 out of 139 cases, and only two of those having a positive culture recovered 94.7 per cent, while in the negative blood cultures the death rate was 85.1 per cent. Streptococci, staphylococci and pneumococci were the organisms found in the positive blood cultures, and their relative frequency was in the order named. Throat cultures were made in sixty-eight cases with fifty-two positive; streptococci, staphylococci and Vincent's organisms predominating.

In 1934, Kracke and Parker[9] stated that they had collected 473 cases in the United States alone. Approximately 350 cases had been reported in Germany, 100 in France and only six in England. Commenting on the symptoms, Jackson[10] says that they are "legion," and may involve "almost any part of the body." He states that unless the white cell count drops below 2,500 per cubic millimeter, the case cannot be considered as one having the true disease.

While agranulocytosis is most common in adults of middle age, cases have been reported in children. Givan and Shapiro,[11] in 1933, collected twenty-nine cases of the disease in children, and added one of their own. Of the thirty patients in the series, twenty-six died. There was no sex predominance in this group. In all but four cases there was a history of acute infection immediately preceding the onset of the agranulocytosis, and a definite anemia was noted in all but one case.

Middle-aged women are most often affected in the proportion of about two to one. Most of the cases cited are from America and Germany, but reports also come from France, England and rarely from Italy. From the above it would seem that countries using the largest amounts of analine dyes and coal tar drugs, have most cases to report.

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* Read before the Eye, Ear, Nose and Throat Section of the California Medical Association, at the sixty-fourth annual session, Yosemite National Park, May 13–16, 1935.

ETIOLOGY

According to Schultz's[4] theory, some unknown factor destroys the granulocyte producing portion of the bone marrow. Owing to this fact the bodily resistance to infection is diminished, especially the local resistance of the mucous membrane. The throat lesions are not to be regarded as the portal of entry of a causative infection, but as a point of diminished resistance to any infection that may be present. Because of this diminished general resistance, a generalized septicemia may occur. Schultz notes that the syndrome may be produced by certain drugs, chief among which are the arsenicals and the gold salts.

Stocke[5] is of the opinion that there is a particular type of reaction of the blood-forming elements of the body to various toxins which may be of a bacterial or chemical nature.

Kracke and Parker[9] note that at least twenty-five organisms have been found as invaders of the blood stream, but feel that in the clinical development it is necessary to presuppose the existence of a previously weakened or damaged bone marrow which may be either acquired or congenital. Pepper[3] notes that allergy has been present in all of the cases studied by him, and suggests that this may be an underlying cause of the leukopenia.

In the case here reported, there was present an infection of the nasal sinuses which seemed secondary to an allergy.

Loveman[12] collected from the literature sixty-four cases of blood dyscrasias resulting from administration of arsphenamin. Of these cases, fifteen were agranulocytosis, with six deaths. He concludes that both arsenic and the benzol radicals are probably responsible for the blood dyscrasias. The possibility of a syphilotoxic factor must also be considered.

More recently the fact that certain coal tar drugs, chiefly amidopyrin, may cause agranulocytosis has been recognized.

Clinical observation and animal experiments led Kracke[9] to conclude that drugs containing the benzene ring as their nucleus are an important factor in the causation of idiopathic granulopenia. They maintain that bone marrow depression is due to oxidation products, and not to the drugs themselves.

In a recent article (1934) Kracke and Parker[13] collected fifty cases due to drugs of the "easily oxidizable benzene ring" type, especially amidopyrin (forty-six cases), occasionally phenacetin and in one case dinitrophenol. Their studies indicate that quinone and catechol are the direct responsible agents, being the oxidation products of these benzene ring drugs.

Madison and Squier[14] report fourteen cases of primary granulopenia, in which the onset was directly preceded by the use of amidopyrin alone or in combination with a barbiturate. Eight of the patients discontinued the drug and of these only two died. Of the six who continued the use of the drug, all died. One rabbit given allonal by mouth developed granulopenia and died; seventeen other rabbits given amidopyrin showed no change in the blood picture. Madison and Squire believe that granulopenia, following the use of such drugs, may be due to allergic or anaphylactoid drug reaction.

Two cases of neutropenia developing during amidopyrin administration have been reported by Rawls,[15] and Benjamin and Biederman[16] report a case of agranulocytosis that responded favorably to the x-ray, but in a period of good health the ingestion of ten grains of amidopyrin caused a return of all the symptoms within forty-eight hours. Fitz-Hugh,[17] in a recent study of twenty-six cases, found that in seventeen there was very definite evidence that the ingestion of amidopyrin was a contributing etiological factor. Idiosyncrasy to other drugs and also to certain foods, bacterial toxins or chemical toxins may be a cause.

Watkins[34] reported a series of fifty-four patients with true agranulocytosis observed at the Mayo Clinic. Of these there were eighteen who had taken amidopyrin either alone or in combination with other sedatives, but exclusive of the barbiturates. Two of the eighteen died, having taken amidopyrin during the entire course of the illness. Eight of the entire series had taken amytal or sodium amytal. Five of these eight died and in one who recovered and had recurrences it was demonstrated that attacks could be produced by amytal. Seven patients received pentobarbital sodium before the onset and four died; four had taken allonal, three died; two had taken luminol, one died. The endocrine possibility is one which is a research problem and is now being studied by Kouzelmann.

Costen[35] reports three cases: one used quite large quantities of sedatives, aspirin and phenacetin; another was a persistent user of allonal; and the third one used sedatives, usually bromids.

From the literature one must conclude that the ingestion of coal tar derivatives, barbituric acid derivatives and pyramidon do play an important part in the etiology of agranulocytic angina.

We must admit, however, that few, if any, reports of this malady have come from institutions treating nervous and mental diseases where large amounts of barbituric acid sedatives are used.

PATHOLOGY

In most fatal cases Beck[18] notes that the bone marrow is degenerated and sometimes liquified, the color varying from red to straw color. He states, however, that there may be even a myeloid hyperplasia. Beck[19] suggested that in case the myeloid tissue is normal or hyperplastic, it is due to absence of the chemotactic factor, and that the cells do not enter the circulation. He notes that nucleotid K96 supplies a chemotactic, but not a maturation factor, and this may explain the failure of this remedy in a certain percentage of cases.

In 1931, biopsies of the bone marrow of the sternum in two cases of agranulocytosis were reported by Dameshek and Ingall.[20] In one case nothing abnormal was found. In the second case, biopsy was done when the white cell count was 600 per cubic millimeter, and granulocytes completely absent. The bone marrow smears showed many erythroblastic cells, and typical myeloblasts, but complete absence of both myelocytes and polymorphonuclear cells.

At the Mayo Clinic, Conner and his associates[21] report that in cases of agranulocytosis that came to autopsy, the characteristic findings in the bone marrow was a marked aplasia of the cells of the myelocytic series. "Proliferation of the granular cells appeared to be at a standstill." They note also that in tissues that were the site of inflammatory reaction and necrosis, there was no polymorphonuclear cell infiltration.

Fitz-Hugh[22] reported autopsy studies on three cases, none of which showed complete aplasia of the bone marrow.

Fitz-Hugh and Comroe[23] reported autopsy findings in nine cases in 1933, and they conclude that in this disease there is maturition arrest rather than actual granulocytic aplasia. This factor either arrests the development of the white cells or produces degenerative changes in them before they are sufficiently developed for normal migration to the blood stream.

Jackson[10] makes a similar conclusion after a study of seven cases coming to autopsy. Jaffe[24] studied the bone marrow of nine cases. The essential pathologic process appeared to be a "disintegration of the specific granules of the myelocytes." Three cases in which there was a transition from agranulocytosis to acute leukemia were reported by Strumia.[25] His autopsy findings were a defect in the bone marrow whereby the immature parent cells become incapable of maturition. In leukemia these immature cells are released into the circulation, in agranulocytosis they are not released.

Postmorten bacteriological studies by Stewart, Tocantins and Jones[8] in fifty-nine cases showed thirty-six positive cultures. Postmortem blood culture was positive in seventeen; spleen in nineteen; bone marrow in five. Streptococci were found most frequently in all sites. In the case here reported, cultures from the throat, the secondary abscesses and from the blood, revealed Staphylococcus albus. The life cycle of the granulocyte is from three to five days; therefore, a dysfunction of the bone marrow lasting for five days would cause a complete disappearance of the granulocyte. Complete absence of granulocytes from the blood stream for a period of seven days is incompatible with life.

In the acute severe cases the myocardium shows changes of toxic degeneration. There is cloudy swelling of the liver and proliferation of the reticulo-endothelial cells of the spleen. The kidneys show comparatively little change. The stomach shows widespread congestion and superficial lesions. The lungs contain scattered superficial hemorrhages and pleural exudate.

Shea[36] concludes that the toxins of the various anginas may either stimulate or paralyze the hematopoietic system.

SYMPTOMS

The most important early symptoms are: prostration, malaise, lack of ambition or initiative, easily fatigued, require abnormal rest and sleep, and there is a slight increase in temperature. There may be a history of repeated throat infections, but the findings are out of proportion to the general symptoms. The throat lesions commonly seen are the grayish ulcerative areas on the pillars, pharyngeal wall, uvula and extending down as far as can be seen.

In the case reported here, there was marked swelling of the lateral and posterior walls of the pharynx, appearing, much like a retropharyngeal abscess.

TREATMENT

In 1931, Taussig and Schnoebelen[6] gave an analysis, the results of the various methods of treatment in cases that survived more than forty-eight hours after treatment was instituted. It was shown that the mortality was 53 per cent in cases treated by irradiation; 64 per cent when treated by transfusion; 73 per cent when treated with arsphenamin, and 75 per cent when treated by other measures. Kracke[7] recommends frequent blood transfusions.

Stimulating doses of x-ray to long bones; colloidal sulphur intravenously; massive doses of liver extract by mouth; application of antiseptics to the ulcers; and cardiac stimulants. Jackson and his associates[26] at Harvard reported in 1931 the treatment of twenty cases by injection of pentose nucleotid K96. In 1932, they[27] reported an additional forty-nine cases, sixty-nine in all. Of these, 74 per cent recovered completely. Fifty-four were typical agranulocytic angina cases, and of these, 70 per cent recovered, seven had relapse and later recovered after use of nucleotide. Two others, who had relapses, died. Intravenous use of this preparation is used only in the "desperately ill" patients. The intramuscular injection causes little, if any, unfavorable reaction.

In 1933, Reznikoff[28] reported fifteen cases treated with adenin sulphate intravenously. Recovery resulted in nine cases.

Foran,[29] in 1932, treated a case by the intravenous injection of liver extract, where recovery resulted. In 1933, the same author[30] reported four more cases treated by the same method, with one death.

Strumia[31] described a method of preparing a "leukocytic cream" from normal human blood. He treated ten cases, and had eight recoveries; but in five of the cases treated he also used pentose nucleotide or transfusions.

In reviewing the literature, one must conclude that the treatments which have given the best results are: x-ray, pentose nucleotide K96 or some similar preparation, and blood transfusion. Ridpath[32] outlines the technique of x-ray treatment and feels that best results are obtained by this method. Observers have noted that multiple abscess formation seems to have a favorable effect on the course of the disease, and this is apparently true of the case reported.

REPORT OF CASE

O. J., 47 years, white female, married twenty-five years, no pregnancies. Referred by Dr. W. E. Johnson on account of a very severe sore throat. She was admitted to St. Francis Hospital on February 24, 1932, complaining of extreme weakness and inability to swallow or open the mouth.

Present Illness.—While doing her housework a few days before, she had a chill and suddenly felt very weak and had pains all over the body. She went to bed at once, but got no relief from her feeling of weakness. In about an hour she attempted to get up, but was unable to do so. This state continued for several days and she remembers nothing more that transpired, except that her throat was sore, and that it became progressively worse each day.

Past History.—Patient has not been a rugged person, but has always done her own work. She has had considerable nasal sinus trouble and had an operation several years ago. No drugs, such as pyramidon, amytal, luminal, arsenic, have been taken by her. She has not been exposed to the x-ray or radium. There has been no contact with fruit-tree sprays, paints, lacquers or dyes. She had the usual childhood diseases. Rarely has a sore throat.

Physical Examination.—Poorly nourished woman, the skin and sclerae having a distinct icterio tint. Aside from a pulse rate of 110, the general physical examination was negative. Throat—Marked redness and swelling of the mucous membrane of the entire pharynx. The ulceration begins on the posterior pillars, and extends down as far as it is possible to see, and also up into the nasopharynx. A grayish membrane covers the ulcerated area, and on the right side there is a swelling which appears like a retropharyngeal abscess. On palpation this mass felt quite firm, and no attempt was made to incise it. A view of the larynx was impossible. There was no enlargement of lymph glands in the neck. Cultures were taken to eliminate the possibility of diphtheria; the report was negative. The temperature was 102. Smears and cultures from the throat showed Staphylococcus albus.

Blood Examination.—Wassermann negative. White cells 500 per cubic millimeter, all small lymphocytes. Red cells 4,000,000. Hemoglobin 70 per cent. The urine contained a trace of albumin, and some pus cells. Icterus index, 20. She was given a transfusion of 500 cubic centimeters of citrated blood, after which the temperature rose to 105.6 and the white cells to 600 per cubic millimeter. She was also given 10 cubic centimeters of leukocytic extract, and on February 25 another transfusion was given. The white cell count rose to 1,150, with 5 per cent granulocytes. Leukocytic extract was repeated four times and transfusion once. On February 26 a blood culture was taken and Staphylococcus albus found. During the next week an abscess developed in the forearm, just below the elbow. This was opened and a drain inserted. After the third transfusion, the granulocyte count suddenly rose to 38 per cent. Eight days after admission it was 95 per cent. During the next ten days the white cell count reached 41,000. The throat condition was treated by application of antiseptics, astringents and hot alkaline gargles. It improved as the blood picture improved, and the patient left the hospital on April 18 in good condition.

Blood counts made several times in the past three years did not show an abnormal condition.

The last count, made on April 20, 1935, was: Red blood cells, 5,500,000; white blood cells, 9,800; hemoglobin, 92 per cent; polymorphonuclears, 75 per cent; lymphocytes, 21 per cent; eosinophiles, 4 per cent.

CONCLUSIONS

1. Observations on the etiology of agranulocytosis are important in view of the increasing use by the laity, and without medical supervision, of synthetic compounds of the barbiturates and benzene ring bodies. Some education of the general public seems necessary.

2. It is definitely proved that the pathology is primarily in the bone marrow, and the necrotic lesions in the mucous membranes are only a local manifestation of a systemic condition.

3. Increased care should be given to taking histories, and more attention should be paid to blood examinations.

4. In treatment, the results from scientific use of the x-ray seem to be the most satisfactory. Nucleotid, leukocytic extracts and blood transfusions were used by many observers with good results.

1515 State Street.

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DISCUSSION

S. v. Christierson, M. D. (490 Post Street, San Francisco).—Agranulocytic angina is a subject that should be brought up frequently because of the comparative rareness of the condition, its formidable nature and the changing methods of treatment due to the fact that the fundamental etiology is not yet determined.

The name "agranulocytic angina" is unfortunate because it unduly stresses the throat symptoms, angina being the Latin equivalent for quinsy or sore throat. As has been pointed out by the author, the throat manifestations are only secondary and not important. Agranulocytosis, or malignant neutropenia, seems to me more descriptive; agranulocytosis, probably the best, as it has become the most familiar in literature.

The importance of diagnosis in an ulcerative sore throat, which can invariably be made with a blood count, cannot be stressed too much because of the unfortunate and serious consequence if arsphenamin is given therapeutically, confusing the condition with Vincent's angina, which is the most common mistake. The arsenicals have a very severe depressing effect on the white blood cells in agranulocytosis.

Most of my information regarding treatment in this disease comes from Doctors Chandler and Wyckoff of Stanford Medical Schools. Since 1931 they have personally studied and supervised the treatment of twelve patients. Minute and frequent observations were done on blood counts, and in several instances on the bone marrow by biopsies. Only two of the twelve have died, and the rest have now been observed for the most part for over two years. Pentnucleotid was given to all, and with the best results. Transfusions were found to be of no benefit, even harmful at times. Removal of drugs used belonging to the amidopyrin and barbituric acid groups is of great importance, as their effect in all but one patient was unmistakable. The use of x-ray over the body requires caution, as large doses have been shown to diminish the number of white blood cells. On the other hand, evidence has recently been brought out by Doctor Chamberlain of Temple University that moderate doses boost the number of white cells, and if given in very severe cases during the four- or five-day period of waiting necessary for the pentnucleotid to act, x-ray may prove a life-saving therapeutic adjunct.

Clinically, the ten patients out of twelve are well; but examination of the bone marrow in at least one of these patients shows a definite impairment in the maturation of the granulocytes, indicating a continued fundamental disturbance in the marrow.

Doctor Hanzlik, in a recently published review of the drugs affecting agranulocytosis unfavorably, gives a most complete list of all such drugs.

A quotation from this article of Doctor Hanzlik's sums up, I think, very nicely the *status quo* of this formidable disease: " . . . it appears reasonable to regard agranulocytosis as an idiopathic disease of the myelogenous structures of unknown etiology, which is rare, but subject to sudden exacerbation by a variety of conditions, including the use of drugs and toxins of variable compositions. The syndrome, in its gravest form, may be precipitated by a relatively insignificant condition or event; which should emphasize the need of the greatest vigilance in suspected cases, or in persons of known sensitivity to drugs and agents in general. It is possible that the condition is an allergic phenomenon."

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Frank A. Burton, M.D. (1206 Bank of America Building, San Diego).—Doctor Johnston has made a comprehensive review of the literature on agranulocytic angina, including the known and accepted facts pertaining to diagnosis and treatment. He has presented an important case of his own where the patient recovered through his treatment.

During the last two and one-half years I have seen, in consultation, two new cases of agranulocytosis—both fatal. I subscribe to the belief of others that dentists and physicians should be continuously alert for early manifestations of this disease, and that all cases of proved agranulocytic angina should be reported.

In a recent paper I presented the result of my study of the data collected from twelve cases of agranulocytosis, ten of which were fulminant and fatal, two recurrent. The two recurrent cases are still under the observation of an internist, differential blood counts are being made at intervals of a week or ten days.

Since my report two and one-half years ago, one patient has had two recurrent agranulocytic attacks, one severe and one mild. In treatment of the severe attack, Nucleotid K96 was successful; for the mild attack, liver therapy was sufficient. The other patient, during the two and one-half year period, has had two attacks: one severe, associated with becoming unusually tired from a long, fast walk. In each attack, Leucocytic Extract brought prompt results. (The patient, in the initial attack, failed to respond to Nucleotid K96, but was promptly helped by Leucocytic Extract.)

Doctor Johnston is to be congratulated upon the favorable result obtained in his case. He shows wisdom in keeping in touch with this patient, for the reason that even after three years the disease, or syndrome, may prove to be recurrent. When vital force and resistance are low, there may develop also a disturbed biochemistry.

The literature and personal experince justify the conclusion that, in these cases, scientific coöperation includes warning a recovered patient that at any time he may have a fatal attack; that he should keep his general health in the best possible condition; that he should provide against becoming physically or mentally exhausted; that it is not safe for him to undergo surgery without a differential blood count.

As I indicated in my paper, to which I have already referred, agranulocytic angina is a disease, the early diagnosis of which is facilitated by thorough taking of histories, and, where potential agranulocytosis is suspected, frequent differential blood counts. And that importance should be attached to the early recognition of the septic lesions by the otolaryngologist and the dentist that warning may be sounded to the internist, in order that there be no unnecessary delay in the correlation of diagnosis and therapy.

Doctor Johnston (Closing).—It does seem that the various papers written on this subject in the past few years have been worth while in calling our attention to a comparatively rare disease. In the early reports the mortality rate was given as from 75 to 90 per cent; today Doctor Christierson has reported twelve cases, with only two deaths, or about 16 per cent. I again stress the importance of blood examinations and more careful history taking, especially as to drug habits.

Within the past ten days I have had the opportunity of observing another case of agranulocytic angina. A middle-aged female, who had undergone a surgical operation five days previously, developed sore throat, increase in temperature, and marked weakness. A blood examination revealed only 500 white cells per cubic millimeter, almost all being the mononuclear type. During the five postoperative days, she had been given several tablets of allonal for insomnia.

Her treatment consisted of blood transfusions, x-ray to the long bones, and pentonucleotid repeated daily. In one week the blood picture had returned to normal, the throat ulcer had healed, and the general condition had markedly improved.

BRAIN TUMORS IN CHILDREN*

By A. J. Scott, Jr., M.D.
Los Angeles

Discussion *by Carl W. Rand, M.D., Los Angeles; Orville N. Meland, M.D., Los Angeles; Howard A. Brown, M.D., San Francisco.*

Brain tumors in children are not common, yet they are not rare. Tuberculosis, syphilis, brain cysts and brain abscess, though they may give symptoms resembling tumors, are not considered in this discussion.

The causes are unknown, but it is stated that some are formed of primitive embryonal or fetal rests, and may be primary or secondary to similar formations elsewhere.

Cushing[1] gives a ratio of brain tumors in children as compared with adults of 1 to 6 and proportions cerebellar to cerebral tumors in children as 2 to 1; whereas in adults they are 1 to 5. Crothers states that brain tumors are rare in infancy and are usually inoperable.

TUMOR TYPES IN CHILDREN

There are three types of tumors in children: First, gliomas, the most frequent; second, congenital tumors; third, tuberculomas. Cushing[1] states that "not all gliomas are seriously malignant tumors."

Gliomas may be divided into:

(*a*) Spongioblastomas, highly malignant, rapidly growing, but occurring in less than 1 per cent in children.

(*b*) Medulloblastomas, essentially tumors of children, are midcerebellar, and arise from the roof of the fourth ventricle. They are rapidly growing, tend to recur, have a six months' preoperative history, and do well for six months postoperative, while a five-year postoperative history is exceptional (Cushing).

(*c*) Astrocytomas, fourth ventricle tumors, are slow-growing and have a better prognosis. They are twice as common as medulloblastomas.

SYMPTOMS

Symptoms in brain tumors are due to intracranial pressure. In children the sutures may be ossified, but when hydrocephalus develops, headache, optic neuritis and vomiting occur. The sutures may open when the pressure gets too great. The development of hydrocephalus in a child, who has previously had a normal size head, is suggestive of brain tumor. When pressure in the skull rises, deep tendon reflexes become sluggish and finally disappear. Headache is rare in children, except during acute infections especially with a temperature. If a child complains of frontal headache and the attacks come on daily, or are persistent, eye-strain must be ruled out. If the pain is occipital or on top of the head, eye-strain is not likely. Occasionally the headache is sharp, or it may be dull and steady, and sometimes worse at night. Rarely does localization of a headache localize the tumor. Vomiting in the morning or during the day, irrespective of food, plus a headache, is suggestive of brain tumor. In cerebellar tumor cases, morning vomiting is a major symptom. Cyclic vomiting and acidosis may be ruled out by the history.

The cause of eye-strain, blurring of vision or nystagmus, must be carefully studied. Choked discs or fullness of the vessels is a valuable finding in the study of obscure cerebral symptoms. Cushing[1] says: "A median tumor of the cerebellum is so common a lesion in preadolescence that when a child has unexplained vomiting, shows a possible enlargement of its head and gives a story of periodical unsteadiness, it is well to be on guard, and to have a look at the eye-grounds every week or two."

Motor disturbances in the use of the arms, hands or legs, and an unsteady gait when developing in an apparently normal child, should cause one to suspect a brain lesion.

Convulsions occur in about one-third of the cases. Epilepsy must be ruled out if the severity, duration and frequency of the convulsions are indefinite. Vertigo may be present in subtentorial tumors.

Bradycardia does not always occur, particularly in third ventricle tumors, if there is no pressure through the iter the vagus center is spared.[2] The respiration may be slow and irregular, if intracranial pressure is increased.

Psychic disturbances, such as irritability, hallucinations, altered disposition, drowsiness or insomnia and increasing mental deficiency may be present when the tumor is in the region of the frontal lobe.

The spinal fluid usually shows no changes. The temperature is generally unaffected until just before death, when there may be a sudden elevation. Hyperpyrexia is extremely rare. The blood pressure is not significant. Dilated scalp veins do occur occasionally.

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* Read before the Pediatric Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13–16, 1935.

Roentgen studies of the skull may reveal abnormalities, but the findings are not constant.

Ventriculography and encephalography are valuable aids, but the amount of information obtainable is not worth the risk. "They should be done only when localizing signs are absent, and encephalography is never done in the presence of choked discs."[3] (Personal communication—Doctor Rand.) A careful neurological examination will reveal the same information.

REPORT OF CASES

Case 1.—June, six years old, was seen September 21, 1927, in consultation with Dr. George M. Stevens of the Los Angeles City Health Department as a possible case of poliomyelitis. She was the oldest of three. She had been well up to August 1, 1927, when her left eye began to turn in. A few days later she was examined for glasses, and her parents were told at the same time that she had large tonsils, which were later removed. About September 9, when walking, she would stumble and fall. Later it was noted that she staggered, would run into things and fall, bumping her head and occasionally falling on her face.

From August 1 to September 21, when sleeping, she would jerk and quiver. Due to the tonsillectomy her appetite was poor, but her bowels were normal.

On examination she was very irritable. Her rectal temperature was 99.8. She had a left external rectus palsy, a drooping of the left upper eyelid and a left facial paralysis, a bilateral horizontal nystagmus, and in the right eye a vertical nystagmus. The left eye did not move upward. There was uvular paralysis. Her ears were normal, and her chest and abdomen showed no abnormalities. All of her reflexes were increased. She had athetoid movements of hands and arms, especially when walking. Her legs were spastic, with a plantar flexion of her feet. When she tried to walk she leaned forward, her legs scissored and she would fall sideways, and if she turned suddenly she would fall.

Her pupils reacted to light but not to accommodation, and were equal. There was a positive Babinski and Kernig, especially on the left. An ankle clonus was more marked on the left than the right.

On September 23, 1927, the eye-grounds were reported as clear, and her blood showed 15,000 leukocytes, the spinal fluid normal with eight cells, and a culture of this gave no growth.

Poliomyelitis was discounted, and the impression was a brain tumor.

We did not hear from her again until October 21, 1927, when she died, and a limited autopsy was permitted.

Autopsy.—Dr. A. H. Zeiler found a "glioma of the pons," but unfortunately the specimen was not sectioned.

Summary of Symptoms and Findings.—Internal squint at start, later nystagmus, horizontal and vertical. Incoördination and stumbling gait. Irritability; when sleeping, jerking and quivering. Left facial palsy. Uvular palsy. Increased reflexes. Positive Babinski and Kernig. Left ankle clonus. Clear optic discs. Negative spinal fluid. No vomiting. No complaint of headache.

Predominant Symptoms.—Staggering gait. Characteristics of cerebellar irritation.

* * *

Case 2.—Joe was ten years old when seen, November 7, 1927, in consultation with Dr. L. H. Athon. His past history is unimportant, except that for the last year and a half he would awaken at night and cry out as though scared. Three weeks before our visit he was at school, jumping from one bench to another when he fell and struck his back. Following this he had some headache and vomiting, but not severe. He had some neck stiffness for four days, which gradually disappeared.

He continued in school until the 5th of November when, on starting to a neighbor's house, he vomited profusely, fainted and had convulsions. When taken home and examined by a neighborhood physician, nothing definite was found. He was afebrile. When seen by Doctor Athon on November 6, he had some neckache, headache and drowsiness, but otherwise the findings were negative.

When we saw him his rectal temperature was 98.8, pulse 80, and respiration normal. He was well nourished, his eyes responding to light and accommodation. His throat was clean, and his chest and abdomen were normal. The reflexes were present, but sluggish. There was a definite cervical rigidity, a slight Kernig, and a positive right-sided Babinski. The abdominal reflexes were present. On lumbar puncture about 15 cubic centimeters of bloody spinal fluid was obtained, which was under pressure. Microscopically the blood cells were crenated and no fresh blood was seen. Cultures were sterile. The Wassermann was negative.

An x-ray, November 8, was negative for fracture of the skull. The boy was so restless it was impossible to get good roentgenograms.

On November 9, 1927, a second lumbar puncture was done, which showed crenated red blood cells. November 12, 1927, a third lumbar puncture showed blood-tinged fluid with numerous red blood cells and a negative culture. His urinalyses were always normal, and his blood counts showed white cells 8,500 and 86.5 per cent polymorphonuclears.

On November 9, 1927, Dr. C. W. Rand examined him and reported his findings as follows:

"A conscious boy suffering a severe headache. The head is turned back with stiffness of the neck and a double positive Kernig. A positive Macewen's sign. The pupils are equal and react to light and accommodation. Fundus examination shows: Hyperemic, swollen discs, engorged tortuous veins, no hemorrhages or exudates. No nystagmus. His bladder is full to the level of the umbilicus and on voiding, 475 cubic centimeters of urine was obtained. There are no deep reflexes of the upper extremities, no right knee-jerk, and the left is sluggish."

For the next few days the condition remained about the same. The headache, which was frontal, was at times very severe. On November 12 the left side of the face and the muscles of the left side of the body were weaker than previously. A right-sided cerebral trouble was suspected, possibly a hematoma, or a pachymeningitis interna hemorrhagica. Under anesthesia four trephine openings were made, two on the right and two on the left. No hemorrhage or hematoma was found, but the brain was wet and swollen, more on the right than the left. There was no shock or hemorrhage. On November 13 his hands and feet were in motion almost constantly. He would not talk, but gave clear concise answers when spoken to and said his headache was better. He seemed brighter and looked at the comic papers. On November 14 he was conscious in the morning and looked at the papers, but in the afternoon he became drowsy and said he did not feel so well. At 8 p. m. he became unconscious and had a convulsion.

He presented a typical picture of extensor rigidity. His rectal temperature was 106.7. The pupils were dilating and contracting. There were evidences of great intracranial pressure with midbrain symptoms. As the wounds on the right side of the skull were opened, the brain was seen bulging to the point of rupture, and an attempt to tap the ventricle from both openings failed. On lumbar puncture dark red liquid blood came through the needle. Probably a fresh hemorrhage had occurred at 8 p. m., the origin being undetermined. He died at 10:45 p. m.

Autopsy.—At the autopsy by Dr. W. V. Brem on November 15, 1927, it was reported:

"On removal of the skull cap, the surface of the brain was injected. There were blood clots at the base of the brain extending down the cord. The lateral ventricles both contained blood clots. In the anterior portion of the right frontal lobe there was an area of softening about 5 centimeters in diameter into which there had been a hemorrhage. This area had broken down into the right ventricle. The tissues in it were mushy and apparently degenerated. The walls were formed by soft vascular tissue without any clear line of demarcation from the adjacent brain tissue. No further examination was made."

Diagnosis: Glioma (type not determined). A vessel had ruptured into this glioma, and there was a spontaneous hemorrhage into the ventricular system. Undoubtedly this same condition had occurred a month previously, and then about November 5 and again on the 14th.

Summary of Symptoms and Findings.—Falling while playing. Vomiting and convulsions. Afebrile. Cervical rigidity. Kernig and Babinski positive. Bloody spinal fluid on repeated taps. Severe headache, frontal. Choked discs. Absence of deep reflexes. Negative findings on trephining skull. Terminal extensor rigidity. Terminal hyperpyrexia. Autopsy, right frontal lobe glioma with hemorrhage.

Predominant Symptoms.—Headache. Convulsions. Choked discs. No typical symptoms to suggest localization of tumor.

* * *

Case 3.—Billy W., October 9, 1933, was eight years old. His past history was unimportant, so far as the present condition was concerned. His birth was normal, and he weighed 7¾ pounds.

The complaint was that he did not seem to require as much sleep as most children for his age. He also had had a troublesome cough since the middle of August, and lately this cough had caused some vomiting. There was a slight pharyngitis. A tuberculin test was negative. On October 31, 1933, the mother stated that he was vomiting, either before or after breakfast, daily. He was nauseated when he did not vomit. His eyes were examined by Dr. Frank Miller, who reported a small amount of hyperopia and that the fundi showed no pathology except "engorged and dilated central veins. The significance of this is somewhat questionable. There is no positive evidence in the eyes of any intracranial pathology." He was fitted with glasses, which gave some relief for a time.

Testing his reflexes he showed all apparently active, although in testing the Rhomberg sign he tended to fall to the right. He could hold himself erect if held tensely. His mother stated that on recent occasions when he was down on the floor and rose up quickly, he complained of dizziness. An x-ray of the skull was reported as negative for x-ray evidence of brain tumor. His Wassermann was negative, his blood sugar 70 milligrams per 100 cubic centimeters of blood, NPN 33 milligrams, blood count normal, and a stool examination was negative for parasites or ova. He was given phenobarbital, one and one-half grains daily, with some relief.

On November 7, 1933, he was examined by Dr. C. W. Rand, who commented that percussion note over the calvarium was definitely high-pitched. His complete examination led him to the following impression:

That here was an eight-year-old boy, who had been well up to six weeks previously when, unexplained, he started morning vomiting, a little headache, a little dizziness on stooping, possibly a little unsteadiness at times. He had shown no definite nystagmus or ataxia. There was some overfilling of the retinal veins which was suspicious. From such a history a cerebral neoplasm was suggestive, possibly in the midline or fourth ventricle. The signs and symptoms were, however, not fully developed, and it was considered best to keep the boy under observation.

On December 20 Doctor Rand reported a suggestive Babinski on the left. Also, that the boy complained of "little headaches" which were frontal, and "big headaches" which were over the forehead and both temples.

On January 19, 1934, Doctor Rand stated that during the past month the boy had had periodic headaches, sometimes going a week at a time free, then having them for several days in succession. Sometimes vomiting relieved the headache. He had his glasses refitted again, as there was some increase in the hyperopia. Over the calvarium the percussion note was higher pitched. The veins of the eyelids were beginning to become dilated, and the eye-grounds showed definite choking of the discs. The disc margins were practically obliterated. The veins were overfilled, tortuous, and in some places embedded. Elevation was estimated at from one to two diopters. On looking to the extreme right and left, there was a little unsteadiness, hardly enough to call it a nystagmus. His convergence was poor. All of his deep reflexes were rather sluggish but equal. An equivocal Babinski was present on both the right and the left. In Rhomberg's sign he swayed, but did not fall. He was unable to stand on tiptoe with both eyes open, and was unable to stand on either foot alone with eyes open. His gait was normal.

On February 2, 1934, he was operated on by Doctor Rand, and a medulloblastoma was diagnosed and removed by curettage. He did well, and the first dressing was on February 11, when sutures were removed and the wound was clean. On February 14 he had a slight rise of temperature to 101.4 from a slight acute pharyngitis, which subsided without complications. On February 19 Dr. Orville Meland began x-ray therapy up to the 26th of February over the right and left occipital regions. Five hundred K. V., 4 M. A. 5 mm. brass filter, 50 centimeters distance, giving 900 r over each area with 300 r administered each day. He left the hospital on February 28.

From March 14 to 21 this treatment was repeated, with the same factors of 900 r to each side of the occiput with 300 r each day. From March 6 to 12 he was treated over the spine through three ports for prophylactic reasons, since this tumor implants itself along the cord. Two hundred K. V., 4 M. A. one-half cu. plus 1 m. al., 50 cm. distance, 400 r over each side of three ports, 200 r being given daily. Doctor Meland reported that, following the treatments over the occiput, he developed increased dizziness with vomiting. There was an erythema of the skin with slight epilation. He gradually gained weight. From September 4 to September 24, at Doctor Rand's suggestion, Doctor Meland gave 150 r every other day, 200 K. V., 4 M. A., one-half cu. plus 1 al., 50 cm. distance: 600 r given over each occiput and 400 r over each of three spinal ports.

On November 2, 1934, he was nine years three weeks old; weight, 55 pounds; and height, 51 inches. He had no hair from the level of the upper borders of the ears down over the occipital region, and the hair on top of his head was very fine. He was in grade 3A at school, and the teacher reported he was doing "top work."

On January, 1935, he started to have some numbness in the right hand and arm, and an inability to grasp objects with the right hand, so he had a further series of treatments along the spine, as there was a possibility of metastases, which are the common sequellae of this condition. The early part of March he began to vomit and have a recurrence of headaches. His operative wound showed increased intracranial pressure. He gradually failed, died April 10, 1935, fourteen months eight days postoperative, and seventeen and one-half months from the onset of his first symptoms.

This history is given in detail to show the early signs and symptoms, and how the tumor was diagnosed and the subsequent course. No autopsy was permitted, as the condition was diagnosed by operation.

Predominant Symptoms.—Vomiting. Headache. Choked discs.

COMMENT

In the differential diagnosis one must rule out brain abscess where there is a history of trauma, or ear or mastoid operation, or sinus infection with or without operation, by the acute onset, increase in temperature and a leukocytosis.

Where vomiting occurs daily or at fairly frequent intervals, gastro-intestinal disturbances must be ruled out. The same applies to eye-strain. This will sometimes cause morning vomiting. Always insist on an eye-ground examination when the eyes are being tested.

If, on spinal puncture, the fluid shows old blood, one may suspect a pachymeningitis hemorrhagica, or if there is fresh blood, study the history carefully for trauma.

Where a child presents a gradual increase in irritability from no known cause, such as overfatigue, it is well to study the history carefully. A complete physical examination must be made, including a study of the eye and eye-grounds.

If a child, who has been apparently normal, becomes awkward in the use of his arms or legs, chorea must be considered and ruled out. Here there are usually the involuntary movements so characteristic of chorea. In the brain tumor case, the awkwardness varies when voluntary movements are attempted.

Gastro-intestinal disturbance of a chronic nature may be suspected from the vomiting and headaches. Here, too, the careful history and physical examination and in addition possibly, a roentgen study of the gastro-intestinal tract, will help clarify this.

The prognosis is always poor. Medulloblastomas are highly malignant, and spread through the spinal fluid where they become implanted in the spinal spaces. They are radiosensitive. The postoperative clinical course is from six months to five years.

Treatment is surgical, followed by deep x-ray therapy in the case of medulloblastomas. The surgical mortality is very high. A decompression may relieve the symptoms for a while.

SUMMARY

Any child presenting the following symptoms should suggest a cerebral or cerebellar neoplasm:

Headache, usually more or less constant.

Vomiting which is not characteristic. Occasionally projectile.

Choked discs, which are usually double with optic atrophy later. Vertigo. A slow pulse.

Dullness verging on apathy and somnolence.

General convulsions which are more frequent in cerebral than cerebellar tumors. Progressive downward course. Irritability of varying degrees. Spinal fluid that is usually negative.

Hydrocephalus in the very young, and Macewen's sign.

A careful history must be elicited and the child thoroughly studied. Do not forget that the eye-grounds may show some of the first signs in the fullness of the vessels. Do not consider persistent vomiting or headache as merely a passing condition, but *rule out neoplasm.*

1401 South Hope Street.

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DISCUSSION

Carl W. Rand, M. D. (1023 Pacific Mutual Building, Los Angeles).—Recently Dr. R. J. Van Wagenen and I had an opportunity to review thirty-eight cases of brain tumors in children who had been admitted to the Children's Hospital in Los Angeles. These cases approximately covered a ten-year period and represent a ratio of 0.335 per cent, or one brain tumor in every 298.6 medical admissions. Tumors of the posterior fossa, averaging 60 to 65 per cent of the total, predominated. Tumors of the pituitary gland (except Rathke's pouch cyst), meningiomas and acoustic neuromas, which form a sizeable proportion of intracranial tumors in the adult, do not occur in children. The percentage of gliomas in adults is in the neighborhood of 45 per cent, while in children it would approach 75 per cent. Some 94.7 per cent gave a history of symptoms of more than two weeks' duration. Persistent periodic vomiting was a prominent symptom occurring in 73.6 per cent; failure of vision was complained of in only 18 per cent, but choking of the disc was found in 73.6 per cent. Convulsions were relatively infrequent, comprising 31.5 per cent, while headache was complained of in 63.1 per cent. Midline cerebellar tumors, usually occupying the fourth ventricle, occur most often in children. They are frequently medulloblastomas or ependymomas. Morning vomiting, enlargement of the head and headaches are highly suggestive of fourth ventricle tumors. Gait disturbances usually appear later. These tumors can seldom be entirely removed. Medulloblastomas, however, are quite sensitive to deep x-ray therapy. They tend to implant themselves along the spinal cord, consequently radiation should be directed over the back. A number of children were carried as feeding problems, behavior problems, encephalitis, or neuropathic conditions before the final diagnosis of brain tumor became evident. The main source of error in all cases was failure to use the ophthalmoscope.

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Orville N. Meland, M. D. (1407 South Hope Street, Los Angeles).—It has been known for a long time that nerve tissue is resistant to radiation; consequently there is little danger of doing damage to normal structures while treating brain tumors. The only exception is when using radon seeds inserted directly into the brain, which may be followed by localized edema and necrosis when the dosage is high. Despite the fact that these structures are radio-resistant, it has been known that certain brain tumors are sensitive, namely, pituitary tumors and some gliomata. In this discussion we are not interested in any other types of tumors except those of the latter class. In this group we have the astrocytomas, the spongioblastomas, and the medulloblastomas. The first of these is not sensitive, so I doubt whether any benefit ever accrues from treating this type of tumor; spongioblastomas are moderately sensitive and may respond favorably at times; but the medulloblastomas, a very malignant tumor, is exceedingly sensitive, and usually in this type the radiologist accomplishes a great deal by radiation therapy. Unfortunately, however, this group represents only a small proportion of the whole series of brain tumors.

The third case in Doctor Scott's presentation is very interesting. The immediate results of radiation therapy were very striking, but the ultimate outcome was only temporary amelioration, with exitus in fourteen months. This is the average postoperative life of these patients.

Recently, at the radiological conference, Doctor Leaf of Stanford reported a five-year result in a patient with medulloblastoma, while Doctor Stone of the University of California, reported a similar case which had run two years. The latter patient was interesting, as he had very striking results after therapy; then he began to fail gradually, despite further treatment. Headache and blindness supervened. A second exploration showed no evidence of tumor, but a cyst—which, when evacuated, was followed by immediate improvement. To my way of thinking, the history of the last patient is very instructive, as it points out the fact that there must be mutual coöperation between the pediatrician, surgeon, and the radiotherapist, to assure the patient of a good end-result.

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Howard A. Brown, M. D. (384 Post Street, San Francisco). — Signs of progressive increasing intracranial pressure, such as Doctor Scott has described, must be considered as suggestive signs of brain tumor. In some instances, however, it may be difficult to differentiate between increased intracranial pressure, resulting from brain tumor, and that seen in association with internal hydrocephalus or subdural hematoma. This is particularly true in infants where a gradual increase in the size of the head, enlarging fontanelles and separation of suture lines, with the development of "crack pot" resonance, may be the only signs of early pressure. Choked discs are frequently absent in infants, even in the presence of a high degree of pressure, because of the separation of the sutures which allows for expansion of the intracranial contents.

In cases of this type considerable information can be obtained by careful puncture through the lateral aspects of the anterior fontanel. A subdural hematoma can be located, if present, and the contents of the sac aspirated. If no hematoma is present, deeper puncture into the ventricle gives an estimate as to whether one is dealing with a hydrocephalus or not. If the ventricles are small, air can be introduced and ventriculographic studies made to localize the pathologic process. If a hydrocephalus is encountered, a small amount of a neutral dye may be injected into the ventricle and, subsequently, a lumbar puncture done to determine whether the hydrocephalus is of the communicating or obstructive type. Immediate recovery of the dye in the lumbar region indicates a freely communicative type of hydrocephalus, while failure of the dye to appear below indicates some obstruction to the outflow of cerebrospinal fluid from the ventricular system. The latter group may result from tumors of the posterior fossa or congenital malformations along the pathways of fluid escape from the ventricles and, in the majority of instances, may be relieved by surgical measures.

In our experience, brain abscess seldom gives rise to fever or leukocytosis, except in its early stages before it is well walled off from the surrounding brain. The presence of middle ear or mastoid infections or acute sinusitis preëxisting the signs of intracranial pathology will indicate the possibility of a brain abscess, although in rare instances they may occur without a definite infectious etiologic agent that can be recognized.

It is impossible to determine the type of tumor present until a surgical exposure has been made. The astrocytomas are fairly well circumscribed, and frequently may be removed completely without recurrence. This, of course, is in contrast to the medulloblastomas, which recur after surgical removal. In view of the marked difference in prognosis between the two types, operation is essential to offer a possible permanent cure in the astrocytomas and, at least, a relief of much of the headache and vomiting in the medulloblastomas.

Early recognition and surgical treatment of brain tumors offer a much better prognosis, both as to life as well as the preservation of vision and other special functions which may be permanently damaged by prolonged increased intracranial pressure.

Doctor Scott has called attention to the importance of a careful history and examination in cases presenting the symptoms of intracranial pressure which he has described. By such efforts, I am sure that our ability to diagnose and treat such conditions in the future will steadily increase in efficiency.

RELAPSING FEVER IN CALIFORNIA*

By G. Creswell Burns, M.D.
Walnut Park

Discussion *by Robert T. Legge, M.D., Berkeley; LeRoy Briggs, M.D., San Francisco; Howard O. Dennis, M.D., Beverly Hills.*

RELAPSING fever occurs in many portions of the world. The existence of the disease has been known for centuries. Hippocrates described an epidemic of relapsing fever in Thasos. In 1741 Rutty observed a disease with relapses associated with typhus fever in Dublin. Livingston, in 1857, described a peculiar relapsing fever in South Africa, which he stated the natives considered to be carried by ticks. Then, in 1868, Obermeier observed a large spirillum in the blood of a patient, and an epidemic in Berlin in 1872 gave him the opportunity to confirm his observation in a number of patients. His findings were published in 1873.

In North America the disease was first recognized clinically in 1844 during an outbreak in Philadelphia, and was thought to have been brought into this country by Irish immigrants. In 1874 an epidemic of relapsing fever was observed among some Chinese laborers in Oroville, California.

Asiatic relapsing fever, which is louse-borne, is endemic, but at times becomes epidemic in European Russia, Poland, and the Balkan States. Sporadic cases and mild epidemics occur periodically in China, India, and north and west Africa. During the World War there was a severe epidemic in Serbia. In 1922 and 1923 there was an outbreak in the Gold Colony in west Africa.

Tick-borne relapsing fever, known as African relapsing fever, is present in southern, eastern, and a portion of central Africa. This variety of the disease occurs sporadically in Southern California and Mexico, and is endemic in Central and South America, Spain, Palestine, and Persia, but this type of the disease rarely becomes epidemic in character.

In September, 1922, Briggs[1] of San Francisco reported two cases of true relapsing fever, contracted by a man and his wife at Polaris, on the Truckee River. These are the first proved cases of relapsing fever arising from a focus in this State. Meader's[2] five cases in Colorado, which he reported in 1915, were the first proved instances of relapsing fever arising from an endemic source in the United States. Up until 1915 there had been a few scattered cases reported by the following observers:[3] Ward (1900), Tuttle (1906), Carlisle (1906), Goldfarb (1908), Hunter and Cope (1909), and Christian (1911). These cases, nine in number, occurring from 1900 to 1911, were all limited to direct importation—from Armenia, from eastern tropical America, from Turkey, from Russia, and from Macedonia.

Two years after Meader's report, Waring[4] reported another case in a boy who came from the same locality as Meader's patients. From 1917 until 1922, when Briggs called attention to his cases, there was in the "Index Medicus" no reference to relapsing fever in the United States.

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* Read before the Medical Section staff meeting of Los Angeles County General Hospital, January 28, 1935.

The first diagnosis of relapsing fever occurring in Panama was made in 1905. From that year until 1930 one hundred and seventeen cases were diagnosed at the Canal Zone Hospital.[5] The occurrence of the disease in Texas was reported by Kemp, Moursund, and Wright[6] in January, 1933. The first report of cases in Canada was made by Palmer and Crawford[7] in June of the same year.

In California no case of relapsing fever came to the attention of the State Board of Health from 1921 (the date of Briggs' cases) until September, 1930, when Dr. George Stevens[8] of the Los Angeles City Health Department reported a case in a school teacher who had lived at Big Bear Lake during July and August. The California State Department of Public Health up to November, 1932, however, had recorded thirty cases of relapsing fever. Varden's case[9] (reported in CALIFORNIA AND WESTERN MEDICINE, May, 1932), is included in this report. Legge[10] reported a case in May, 1933, and Coleman,[11] in December, 1933, reported the occurrence of the disease in himself, acquired accidentally through inoculation. These last two cases are also included in the California State Department of Public Health report of November, 1932.[8]

Up to January 1, 1935, a total of eighty-six cases of relapsing fever had been reported to the State Department of Public Health.[12] In the year 1933 there were nineteen, and in 1934 there were thirty cases.

California cases by geographic location according to counties are:

El Dorado and Placer	32
Mono	1
San Bernardino	46
Sierra	2
Tuolumne	1
Source out of the State (Nevada, 2; New Mexico, 1)	3
Laboratory infection	1
Total	86

CLINICAL FEATURES

True relapsing fever is an acute infectious disease caused by a spirochete of the genus Treponema. The disease is characterized by paroxysms of fever lasting from three to six days, with an afebrile interval lasting about a week.

ETIOLOGY

Borrelia recurrentis is the name given to the organism causing European relapsing fever. Other strains have been thought to exist, and various strains have been studied in the different localities throughout the world where the disease has been isolated. Coleman,[13] in his experimental work on relapsing fever in California, concluded that the three California strains which he has in his possession are probably identical. He believes that the Novyi and Dutton spirochetes appear to belong to different groups from the California spirochetes, though there may be some relation between the California and the Novyi strains. The tamarack gray squirrels and chipmunks are the animals which harbor the spirochetes in California, and the tick Ornithodorus is responsible for the transmission of the spirochetes to man. The mode of infection is contamination, the coxal fluid and feces of the tick being rubbed into the skin of humans. It seems that a bite is not necessary to effect transmission. The list of animals in various localities throughout the world which have been shown to be infested with the spirochetes of relapsing fever is large, including the armadillo, opossum, and dog. Curiously enough, the California ground squirrel is immune.

SYMPTOMS

The incubation period is usually less than twelve days; the average, seven. Prodromal symptoms are unusual, but in some cases the onset of the disease may be marked by menal depression, inactivity, slight shivering, and sweating. The onset of the attack is sudden with a chill or, as is usually the case, a chilliness lasting several hours. The fever mounts quickly and there is severe frontal headache with nausea and vomiting. Spells of shivering may be prolonged and vomiting often is severe. Pain in the epigastrium and in the region of the liver and spleen may be a complaint. Generalized muscular and joint pains may become excruciating. In young persons there may be convulsive seizures. The temperature becomes high, to 104 and 105 degrees Fahrenheit. The pulse is alarmingly rapid. Jaundice has been reported as a common symptom in some epidemics. Cough is often a symptom. The patient appears prostrated, the face is flushed and may be cyanotic. The temperature remains high for a few days—three to five or six, with irregular fluctuations. The skin is usually dry and hot. Nose-bleed is frequent, and there may occur hemorrhages into the skin, into the conjunctiva, from the ears and from the gastro-intestinal tract. The patient may become delirious. A macular eruption sometimes appears over the thorax, abdomen and legs, lasting a few days. The spleen is enlarged and tender; likewise the liver. Herpes is common. The urine is high-colored and contains albumen.

At the end of the paroxysm the temperature drops suddenly. With this come a profuse perspiration and a feeling of great relief to the patient. The appetite returns and the patient soon feels well again. There is an apparent recovery which lasts for approximately a week. Then a relapse follows with a sudden return of all the acute febrile symptoms. Occasionally there is recovery after one attack of fever. Untreated, the disease will usually run through a varying number of relapses. Instances of many relapses have been recorded. Osler[14] says that a second and third may occur, and that there are instances on record of a fourth and fifth. Whitmore,[15] writing in "Tice's System of Medicine," states that in about two-thirds of the cases one relapse ends the disease, that a second relapse is not uncommon, that a third and fourth relapse are much less common, and that very rarely are there more than four relapses. St. John,[16] writing in Cecil's "Textbook of Medicine," says that a second relapse is uncommon, a third rare. In the California cases there were several cases with four relapses, a few with five, one with eight relapses, and one patient continued to have febrile attacks every ten days from August of one year until March of the following. Clinical records of only thirty of the eighty-six California cases were available for reference.

At times the symptoms during the relapses may be more severe than during the original attack; but as a rule they are less severe and of shorter duration.

DIAGNOSIS

The diagnosis is established by finding the causative organism in the blood during a paroxysm. The spirochetes may be found by examination of a fresh drop of blood or in stained smears. The ordinary Wright's stain will suffice. In mild attacks the spirochetes may be so scanty as to be readily missed.

DIFFERENTIAL DIAGNOSIS

Sporadic cases of relapsing fever are frequently confused with malaria. But in the former the afebrile interval between paroxysms is usually longer, and there is a leukocytosis, while in the latter there is generally a leukopenia. Dengue fever is differentiated by a leukopenia and an absence of spirochetes in the blood. Smallpox, influenza, and yellow fever have to be differentiated. The early stages of plague may be confused with relapsing fever. The enlarged spleen speaks against smallpox, influenza, yellow fever, and dengue. During epidemics typhus fever may cause confusion. Undulant fever needs to be differentiated. In children acute gastro-intestinal disturbances, pyelitis, early pneumonia, may be the first conditions to be considered. The polymorphonuclear leukocytosis is apt to be more confusing than it is a help.

COMPLICATIONS

In California the complications have apparently been slight if not nil. But in severe epidemics abroad serious complications have occurred. Bronchitis and pleurisy are fairly common. Pneumonia may develop. The spleen may rupture. There may occur cerebral hemorrhage or thrombosis. Heart failure and nephritis may follow prolonged relapses. Iridocyclitis is fairly common.

PROGNOSIS

Before the introduction of salvarsan treatment of relapsing fever, the mortality from the disease was from 2 to 5 per cent. In China and Indo-China the mortality often has been as high as 25 to 40 per cent. In the epidemics in India and China in 1912 -1913, the mortality was as high as 70 to 80 per cent. Most of the deaths are due to complications. Children and adults in good physical condition do not often develop complications.

TREATMENT

Prophylaxis is of value in prevention of the disease, especially in conditions of filth and famine. In California, in the mountains, modern living conditions generally prevail in the cabins and cottages. The ticks are part of the great outdoor life, and their presence need not necessarily signify the existence of unhygienic conditions. Nevertheless, prophylaxis should be aimed directly at removing the spirochetes from man, as a source of infection, by curing the patients as soon as possible, and by protecting persons from the bites of bedbugs, lice, and ticks.

Specific treatment consists of giving arsphenamin or neoarsphenamin. St. John [16] states that in fully 80 per cent of cases the intravenous injection of 0.3 gram of salvarsan or 0.45 gram of neosalvarsan will end the infection. It is advisable not to give too large doses, since relapsing fever lowers the resistance of the patient to the toxic properties of the drug. Best results are obtained if the drug is given early in the disease and at the onset of a paroxysm. For a child of seven, an injection of 0.15 gram of neoarsphenamin should ordinarily be well tolerated.

General measures are those employed in the treatment of other acute infectious diseases.

REPORT OF CASE*

The patient is a boy, seven years old, who contracted relapsing fever at Big Bear Lake in San Bernardino County. He had four relapses, one of these occurring after specific treatment had been instituted.

The patient has had measles, chicken-pox, and whooping-cough. The latter disease, which occurred at the age of seventeen months, left him with certain allergic tendencies. Each upper respiratory infection would be accompanied by considerable asthmatic wheezing. In April, 1934, the patient was in a hospital because of bronchial pneumonia, verified by x-ray. The rest of the history is irrelevant.

The patient left home June 28, 1934, with three other children to spend the summer in a modern cottage at Big Bear Lake. On July 8, ten days after arriving in the mountains, quite by accident it was discovered that he had a temperature by mouth of 99 degrees. The next day the patient complained of malaise, headache, and was feverish. The local physician was called in to see the patient the following day because his temperature had gone to 103 degrees Fahrenheit (by mouth). The patient vomited several times, complained of severe headache and epigastric pain. He was brought home from the mountains July 10, and the following day contined to be nauseated and vomited once. His temperature had come down, and by July 12 he was feeling well again, appetite had returned, and he was ready to get out of bed. But he was kept quiet for another day. On July 14 he was out riding his bicycle, and apparently had recovered from the acute illness. It was felt that the condition was either an acute respiratory infection or an acute gastro-intestinal disturbance. Coming in the midst of an epidemic of poliomyelitis, this disease was also borne in mind.

On July 19 at three o'clock in the morning the patient awakened and complained of feeling hot. He was perspiring. He was given five grains of aspirin, and he fell asleep. At seven o'clock in the morning his temperature was 102 degrees Fahrenheit. That afternoon the temperature was 104.6 degrees. It dropped some during the night, and the next morning, July 20, at ten o'clock his fever was 105.2 degrees Fahrenheit.

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* Editor's Note.—Report of case is that of the author's own son.

The patient was prostrate, complained of severe headache and epigastric pain, with soreness in the upper left quadrant of the abdomen. He had a dry cough and his nose bled. Physical findings, as previously, were essentially negative, with the exception of tenderness on palpation in the region of the spleen, though no enlargement of that organ could be detected. A glass of hot lemonade with whisky seemed to be what induced a break in the fever, for in two hours his temperature was down to 100 degrees. The patient perspired profusely. As his temperature was rising during the morning hours, the patient had complained of feeling cold, but at no time during the initial attack or during any of the relapses had there been a definite chill. He felt well again by July 22 and was soon up and about, playing. He was taken back to Big Bear Lake on July 28 and had another recurrence of fever to 104.6 degrees the following day. His temperature the evening of July 29 was 96 degrees, recorded after several hours of profuse sweating. The patient was brought back home again the following day, July 30. His temperature rose again to 103.6, and a blood count done then was: hemoglobin, 80 per cent (T.); erythrocytes, 5,000,000; leukocytes, 14,400; with 75 per cent polymorphonuclears, 9 per cent mononuclears, and 16 per cent lymphocytes. The neutrophils were adult in form. Urinalysis was negative, with the exception of a faint trace of acetone.

Relapsing fever of some nature was obviously by now the clinical diagnosis. A sample of blood was taken for agglutination test. This was reported negative for typhoid, paratyphoid A and B, but was positive for mellitensis in strong dilution (1 to 20). The following day, July 31, three white mice were inoculated intraperitoneally at the bedside, each with one cubic centimeter of the patient's blood.

The patient again had an afebrile interval and felt quite well. Two of the mice became ill on the sixth day after inoculation, and were examined the afternoon of August 7. That evening the patient complained again of malaise, and the next morning, August 8, at eight o'clock his temperature was 102 degrees. Blood smears were made at the beginning of this relapse and were positive for spirochetes. The blood from two of the inoculated mice also was positive for the spirochetes of relapsing fever. A small dose of neoarsphenamin, 0.03 gram was given intravenously to the patient at ten o'clock, August 8. This dosage was decided upon after reference to the article by Legge, in which he stated that this amount of the drug had been effective for his patient, who was an adult. Later it was concluded that in Legge's article there had been a typographical error and that what his patient actually received was 0.3 gram and not 0.03 gram of neoarsphenamin. The afternoon of the day the patient was given this small dose of neoarsphenamin his temperature reached 103.4 degrees. The next day his temperature climbed to 105.4 degrees, with all the previous symptoms and findings present, but on August 10, the following day, his temperature did not go above 98 degrees. It had been planned to wait four days before repeating the neoarsphenamin, but on the third day following the initial injection another unexpected relapse took place, patient's temperature mounting to 105.2 during the night. He again felt quite well the next day, though by now he was looking quite pale and worn out as the result of the repeated febrile attacks. On August 13 he was given 0.15 gram of neoarsphenamin intravenously, and this dose was repeated in four days. On the day his fifth relapse would have occurred, his temperature rose to 99 degrees. On August 21 he was given another intravenous injection of neoarsphenamin, the dose this time being 0.1 gram. He was allowed to return to Big Bear Lake the following day, where he remained symptom-free and quickly regained his lost weight and strength.

COMMENT

The small initial dosage of neoarsphenamin produced a reaction similar to a "provocative." Until this intravenous injection was given, the relapses were occurring at regular ten-day intervals, but this injection apparently was responsible for precipitating the unexpected relapse which followed two days after the peak of the last febrile attack. Perhaps the second dose of 0.15 gram would have sufficed to prevent further relapses, but to make certain that the blood stream was rid of the spirochetes a third injection was felt advisable. The child received a total of 0.45 gram.

None of the other children or adults in the cottage contracted the disease, but a five-year-old girl, living for the summer in a cottage about one hundred yards away, also developed the disease. The diagnosis was made by Doctor Varden of San Bernardino. It was learned that a girl of three, staying for the summer in a cottage just next door to the cottage where the patient was living, had contracted relapsing fever three years previously.

Miss Dorothy Beck of the California State Board of Public Health conducted a search of the cottage for ticks and other insects. Some ticks were found in the vicinity of the cottage, but whether they were Ornithodorus moubata or some other species I am not able to state. Miss Beck informs me that the ticks have not been classified as yet.

I have learned from Miss Beck that practically all of the San Bernardino County cases have come from the vicinity of Big Bear Lake.

In conclusion, I should like to say that the question of latent infection is apt to be of some concern, but in this regard Coleman[11] has concluded, from his experimental work on mice, that the brain was never virulent unless the blood was. He attempted to reactivate spirochetes in mice which had apparently recovered recently or after a long interval, and no reinfection was revealed.

7878 Seville Avenue.

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DISCUSSION

Robert T. Legge, M. D. (University of California, Berkeley).—Our State has had several diseases that are essentially Californian, *e. g.*, tularemia, coccidiosis, and relapsing fever. It was due to members of this society and investigators within our State that these diseases were either definitely determined as entities or their relative causes discovered.

The medical and public health professions at the moment are much concerned as to the number of cases of relapsing fever that are being reported. Investigations have shown that this disease is endemic in California.

Physicians, therefore, must be on the alert and suspicious of certain fever patients, especially those living within endemic areas, or who have visited there. The diagnoses can be determined positively by clinical laboratory examinations of blood smears taken when the patient has temperature, for the presence of spirochetes, and by mouse inoculation as pointed out by Doctor Burns, as these animals are highly susceptible to the disease.

In my case, reported in this Journal, May, 1933, the patient, Mr. C. M. Wheeler, M. S., a graduate student with Doctor Herms, doing research in medical parasitology at the University of California, who was accidentally infected while engaged in field work, is now a candidate for a Ph. D. degree. His thesis is to be on experimental evidence as to the vector that causes relapsing fever. This scientific piece of research will throw much light on an important subject.

The habitat of this rodent parasite is found usually in high altitudes, a significant fact, as most of the cases reported came from such endemic areas as Big Bear Lake and other Sierra regions. Herms, Meyer, and Wheeler have positively recovered this parasite in chipmunks' nests, and have incriminated the vector now known as Ornithodorus hermsi, so named after Professor William B. Herms of the University of California.

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LeRoy Briggs, M. D. (384 Post Street, San Francisco). Relapsing fever yearly is becoming more of a vacational health problem in an ever-increasing area throughout the West, and continued reference to it by local authors is necessary to make us diagnostically conscious. Not that the disease is a serious one, since the mortality so far has been nil; but early recognition and treatment is essential to cut down the period of disability. In regard to the physical findings as outlined by the author, experience has shown that in the mild variety we have here in California, eruptions are rare—herpes occur only in about 14 per cent, and splenomegaly in 33 per cent.

In the transmission of the disease a proved vector has at last been found[1] as a new species of Ornithodorus tick. Specimens of this were collected from the two larger endemic centers, and monkeys and mice successfully inoculated by allowing the ticks to feed upon them. In honor of Professor Herms, the name "Ornithodorus hermsi" has been proposed for this species. It must be repeatedly emphasized that in the minds of the laity the word "tick" is ineradicably associated with the "wood tick" of the genus Dermacentor, whose habits of feeding are so different from the Ornithodorus. The latter drops off after feeding and, with the exception of O. coriaceus or the pajaroello, leaves no particular lesion at the site of the bite, while the Dermacentor is found embedded in the skin. Furthermore, the larval and nymphal stages are capable of transmitting the disease, yet are so small as to be nearly invisible. These facts must be considered in the proper evaluation of the usual history of "having seen no ticks or bites."

The chief hope for prophylaxis lies in an attack on the rodent reservoir. The tick vector is so rarely discoverable we do not know whether man to man infection via vector plays a part; but we do know that certain rodents, such as chipmunks and tamarack squirrels, are widely and constantly infected. These can be destroyed, and steps are now being planned for control measures around the major endemic centers through the joint action of the Federal Government and the State Board of Health. It is to be hoped that the sentimentality of certain "nature lovers" will not be allowed to interfere with this step forward.

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Howard O. Dennis, M. D. (Beverly Professional Building, Beverly Hills).—Doctor Burns' paper again emphasizes the fact that relapsing fever has become a diagnostic problem in California. This is true particularly in the summer months, when vacationists travel to the higher altitudes, where reservoirs of the infection have been found to exist.

In Southern California, Big Bear Valley has been the source of practically all of the cases. Only one case has been reported from Lake Arrowhead. It is important, therefore, to stress the value of a history of having visited in such areas approximately a week before the onset of the symptoms. Such a history in cases exhibiting signs of an acute infection as that which Doctor Burns has described, should at least raise the question of relapsing fever as a possibility.

My personal experience has been limited to one case from this area. This patient demonstrated the difficulty in finding the organisms in some cases despite careful study of a large number of smears made at the onset of each of several paroxysms. The ultimate diagnosis was made on the finding of but two or three spirochetes in one of several slides. Unfortunately, mouse inoculation was not done as early as would be the case should similar circumstances again develop. In view of this difficulty, mouse inoculation is to be resorted to as soon as a suspicion of this condition has been aroused.

In Doctor Burns' case report he mentions the positive agglutination of mellitensis in a dilution of 1-20. As undulant fever is considered in a differential diagnosis, such a finding might indicate that one were dealing with an infection due to this organism. It should be pointed out that a diagnosis of undulant fever should not be made unless a positive reaction in a dilution of approximately 1-1000 is found. Positive reactions of 1-20 and slightly higher are frequently found in individuals for a period of several years after the original infection with mellitensis has occurred. A recent check on Doctor Burns' child shows the reaction now to be negative.

California cases reported to date during 1935 are as follows: El Dorado County, two; Nevada County, one; San Bernardino County, four; Tuolumne County, one; State of California, one.

The patient from the State of California had been traveling through the Sierra Nevada mountain area and into Nevada; therefore, exact source of infection could not be determined, and the case was charged to California as a whole.

In addition, the names of seven other patients with diagnosis confirmed by laboratory findings have been reported, but sufficient data have not been received to determine localities in which infections were contracted. These seven were not included in the above tabulation; hence, the total for the year to date is sixteen cases. There have been no deaths.

Certainly, it has been shown by Doctor Burns' paper, and the paper of Dr. LeRoy Briggs earlier in the year, that the incidence is great enough to impose upon practicing physicians a definite responsibility for the diagnosis of relapsing fever which cannot be underestimated.

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THYROID GLAND ABLATION*

ITS USE FOR CONGESTIVE HEART FAILURE AND ANGINA PECTORIS, WITH A REPORT OF FIVE CASES

By J. H. Pettis, M.D.
and
E. D. Sorsky, M.D.
Fresno

Discussion *by Arthur L. Bloomfield, M. D., San Francisco; William Dock, M. D., San Francisco; R. Duffy Friedlander, M. D., San Francisco.*

SINCE the introduction of total ablation of the thyroid gland for congestive heart failure and angina pectoris, there has been much contradictory comment. The encouraging reports of Doctors Blumgart, Levine, and Berlin have not been entirely duplicated in other clinics. This new therapeutic procedure is at present receiving clinical trial in various centers. The ultimate acceptance or rejection of removal of the thyroid gland in the treatment of this particular group of patients will depend on the final interpretation of the reports from these various centers. The present report is merely the presentation of our results in the application of total ablation of the thyroid gland in five patients. It will not attempt to analyze the physiologic, biochemical, or theoretical aspects involved in this study.

CLINICAL MATERIAL FOR THIS STUDY

Since first undertaking this study in January, 1934, we have seen approximately one hundred and fifty patients suffering from cardiac disease. Of this group we have selected five for the application of total thyroidectomy. The fact that only these few cases were considered suitable for surgery emphasizes the extreme limitations of this new procedure. In the large number of cardiac patients our present medicinal armamentarium is entirely, or at least partially, effective in sustaining a sufficient cardiac reserve. It is in the remaining cases that the application of this newer surgical measure is to be considered. It is in these patients, in whom all therapeutic measures have failed to increase adequately the cardiac efficiency to a degree comparable to the demands placed upon it, that we turn to a method for reducing the load upon the circulatory mechanism. We are thus dealing with a very select group, a group who, according to the therapeutics heretofore available, were doomed to an early death. It is only a portion of this group who may expect beneficial results from removal of the thyroid gland. It is obvious that in the individual with a complete loss of cardiac reserve, even under a markedly diminished load (bed rest), no satisfactory result can be expected from a further slight reduction of the metabolic requirements. Thus, it is apparent that these cardiac invalids, whose lack of reserve necessitates constant bed rest, are unsuited to this new procedure. The greater number of pathologic affections of the heart are progressive. The lessening of the burden placed upon the heart (as by removal of the thyroid gland) may only partially limit this progression. This fact places yet another restriction upon our selection of patients. It necessitates a heart reserve which will permit efficient cardiac function with the passage of years, in spite of the naturally progressive character of the pathologic process in the heart. A consideration of the above facts emphasizes the limitations of the field of usefulness of removal of the thyroid gland in cases of congestive failure.

OPERATIVE PROCEDURE

In carrying out the operative procedure, we have largely followed the technique as recommended by Berlin in his original communication. We have found, however, that cervical block anesthesia has, in our hands, been superior to general or local infiltration anesthesia.

The following are the brief case histories of the five patients upon whom we have performed total ablation of the thyroid gland.

Case 1.—A. Du B., white, male, aged 53 years, was seen in this hospital on four occasions. At each of these admissions, patient was suffering from congestive heart failure. On his last entry the patient showed marked pitting edema of the lower extremities, generalized anasarca, enlarged liver, and orthopnea. Auricular fibrillation was present. Past history was insignificant; there was suggestive history of rheumatic fever in childhood. Patient's occupation was that of laborer. Since onset of present illness two and a half years previous, there has been a limitation of the patient's capacity for work. For the six months preceding his last entry into the hospital he had been unable to perform any physical labor. A diagnosis of auricular fibrillation, and mitral stenosis and insufficiency on a rheumatic basis was made. Because of the inability of the usual therapeutic measures to maintain the cardiac balance, total thyroidectomy was decided upon. At the time of operation on January 19, 1934, the patient's condition was considerably improved, although he was unable to arise from bed. Basal metabolic rate was normal. Following operation the patient became progressively worse. Edema returned to the lower extremities, dyspnea became marked, heart action became extremely rapid and weak. The patient died of cardiac failure on the third postoperative day.

Comment: It was following our failure in this case that we began to appreciate the extreme limitations of this new therapeutic measure. This first mortality was undoubtedly due to improper selection of the case. The cardiac reserve was so depleted that the added shock and burden of surgery was too great. In order to be eligible for this operation the cardiac sufferer must have such a cardiac reserve as will enable him to accomplish certain limited activities. The exact definition of these reserves is at present uncertain. It would seem, however, that as a minimal requirement, the subject must possess such cardiac reserves as will enable him to be ambulatory.

* * *

Case 2.—A. P., white, male, aged 53 years, was entered in this hospital on three occasions, each entry being for congestive heart failure. The patient showed marked pitting edema of lower extremities, right pleural effusion, orthopnea, and enlarged liver. Wassermann test had been positive, but patient had received adequate antiluetic treatment. Blood pressure, 130/80. Diagnosis was made of congestive heart failure, as result of double mitral disease. Basal metabolic rate

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* Read before the General Medicine Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

was normal. Past history revealed single indefinite attack of rheumatic fever in childhood. The patient was a rancher, and before onset of present illness a year previous, had been engaged in hard physical labor. The usual medicinal measures had proved unsuccessful in maintaining an adequate cardiac balance. Because of this, total ablation of the thyroid gland was suggested. At time of operation on March 23, 1934, patient was ambulatory and able to perform slight tasks on the ward. Following surgery there was uneventful convalescence.

Since time of operation this patient has been receiving maintenance doses of digitalis, and has been enabled to return to moderate physical activity on his ranch. He has shown no symptoms of congestive heart failure. The hypothyroid state has caused no undesirable symptoms other than an increasing obesity, which was controlled by small doses of thyroid extract. At the present time, thirteen and a half months after operation, the patient's condition is good. His B. M. R. is minus 29. The results in this case are extremely satisfactory. But for this operation, we feel this patient would have been unable to return to any useful occupation without the production of congestive failure. The production of a hypothyroid state has not resulted in any deleterious symptoms.

* * *

Case 3.—W. P., Italian, male, aged 45 years, was admitted to the hospital on May 8, 1934. At time of entry patient was suffering from congestive heart failure, severe angina pectoris, and hypertension. History revealed presence of severe anginal attacks of eight months' duration, and congestive heart failure of four months' duration. The patient had a single mild attack of acute rheumatic fever. He had been engaged in strenuous labor since youth. Attacks of severe anginal pain had necessitated abstinence from hard labor, and congestive failure had made bed rest necessary. Physical examination revealed slight pitting edema of lower extremities, enlarged liver, and orthopnea. Blood pressure was 183/100. Basal metabolic rate was normal. A diagnosis of hypertension, angina pectoris, and double mitral disease with congestive failure on rheumatic basis was made. At time of operation on May 18, 1934, the patient was able to be up and about. He could perform slight physical exertions without cardiac embarrassment, although severe anginal attacks still persisted. Convalescence following total ablation was complicated by partial atelectasis of right lung. The patient recovered satisfactorily, and was discharged June 1, 1934, on maintenance dose of digitalis.

Comment: Since operation twelve months ago, patient has had no recurrence of congestive failure although engaged, contrary to our advice, in strenuous labor. Severe anginal attacks have never recurred, notwithstanding patient has occasionally had slight substernal discomfort. The place of total thyroidectomy in the treatment of angina pectoris is still in question. The reports of observers in the East are indeed encouraging. But whether this procedure will supplant our other methods of surgical interference in angina pectoris is yet to be determined. No abnormal symptoms of the hypothyroid state have appeared other than mild obesity. This has been controlled by small doses of thyroid extract.

* * *

Case 4.—N. S., white, male, aged 58 years, was admitted to this hospital on three occasions. On each of these entries the patient showed marked congestive heart failure. Past history revealed the presence of congestive symptoms for the past four years. There was no definite history of rheumatic fever. The patient was a farmer and had been engaged in moderately strenuous labor. Physical examination revealed marked pitting edema of the lower extremities, generalized anasarca, orthopnea, enlarged liver, and Cheyne-Stokes' respiration. The x-ray showed a markedly enlarged heart whose transverse diameter measured 19.5 centimeters, approximately 64 per cent of the interthoracic diameter. An electrocardiograph gave definite evidence of an old coronary occlusion, left branch. Blood pressure was 124/64. Basal metabolic rate was normal. Diagnosis was made of double mitral, and double aortic valvular disease with congestive heart failure on rheumatic basis. Following usual medicinal therapy, patient improved sufficiently to permit the performance of slight tasks about the ward. Total thyroidectomy was decided upon and was performed on September 1, 1934. Convalescence was uneventful and patient was discharged on October 18, 1934. He was given maintenance dose of tincture digitalis.

Comment: After discharge, this patient was fairly comfortable for seven months, and was able to do light work. He then reëntered the hospital with signs and symptoms of a recurrence of congestive failure. He has now been in bed for one and one-half months, without improvement. It is probable that in this case the pathologic process of the heart was rather rapidly progressive, and that the heart has now reached the stage where it is unable to meet the metabolic demands of the tissues, even though this demand has been greatly decreased by the hypothyroid state.

* * *

Case 5.—A. G., white American, male, aged 52 years, was seen in this hospital on three occasions. The last entry, November 12, 1934, was for congestive heart failure. At this time the patient complained of dyspnea, cough, irregular heart action, slight edema of ankles, and pain in the left chest. He was a farmer. The past history revealed acute rheumatic fever at twenty years of age. Congestive heart failure was first noted in 1928. Since that time the patient has had about five attacks of congestive heart failure. He has also had bronchial asthma for about ten years. Diagnosis of congestive heart failure with auricular fibrillation on a rheumatic double mitral disease was made. Bronchial asthma was also present. Blood pressure was 123/76. Serology was negative. B. M. R. was normal. Complete thyroidectomy was decided upon because of failure of usual therapy in maintaining suitable cardiac reserve. This was performed on December 26, 1934. Patient had uneventful convalescence, and was discharged with maintenance dose of tincture of digitalis on January 6, 1934.

Comment: Since time of operation the patient has been free of any untoward cardiac symptoms. He has had one attack of bronchial asthma, for which he was hospitalized for a period of about two weeks. The hypothyroid state has produced no distressing symptoms. The patient has not as yet returned to active physical exertion.

COMMENT

We have merely attempted, in the discussion of these five patients, to present our experience in the application of total thyroidectomy in certain types of heart disease. We wish to add these few case reports to the rapidly accumulating literature on this subject. The correct evaluation of this new procedure will depend upon the final analysis of all the reports from the various centers. In order that these reports may be suitable criteria upon which to base final judgment, we wish to emphasize the extreme care necessary in the selection of these cases. Improper selection of patients will bring undeserved discredit to this new surgical procedure. We feel that the experience gained thus far in the application of total thyroidectomy warrants its further trial.

1759 Fulton Street.

DISCUSSION

Arthur L. Bloomfield, M.D. (2398 Sacramento Street, San Francisco).—Everyone has been interested in the work of Blumgart and his associates on total thyroidectomy for heart disease; the results reported by the Boston group being undoubtedly impressive. It must be remembered, however, that this work has been done by experts in a large metropolitan clinic, and the question at issue really is whether the general practitioner, who is neither a cardiologist nor a specialist in thyroid surgery, can serve his patients equally well. The careful work of Doctors Pettis and Sorsky is an excellent example of what the procedure may be expected to do in the hands of doctors as a whole. They wisely emphasize the point at issue: do the benefits outweigh the hazards of operation and the difficulties of controlling postoperative myxedema? It must be recalled that extirpation of the gland is only the beginning; many of the patients may require a delicate and difficult adjustment of thyroid dosage to preserve lowered metabolism, and at the same time to avoid the discomforts of extreme hypothyroidism. In our experience the choice of subjects is not easy. One hesitates to proceed when the patient is doing fairly well with ordinary cardiac therapy; whereas if he is in extremis, the hazards of operation are too great. We doubt if total thyroidectomy will ever have a very wide application in the treatment of heart failure.

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William Dock, M.D. (2160 Pacific Avenue, San Francisco).—Doctors Pettis and Sorsky present a report of carefully conducted exploration of a new therapeutic method. The thyroidectomies performed for heart disease must, like those for hyperthyroidism, produce a permanent and marked fall in basal metabolism. A slight or a temporary fall indicates failure, yet the parathyroids and recurrent laryngeal nerves must be conserved. It is apparent that the authors have correctly applied the method to produce these ends, and that in three of five cases the result justifies the treatment. Improvement, which could scarcely be expected from any other treatment, has followed. In our clinic only three patients, all suffering from angina, were found to be good candidates for this procedure. The basal rate on one was normal, and the operation was therapeutically a complete success; in the other two the basal rates were found to be minus 23 and minus 30 per cent, and the operation was not performed. It is my feeling that this treatment will be found of value in angina and in mitral stenosis, but only a small per cent of those with heart disease will be suitable subjects for thyroidectomy. In those only who are able to be comfortable with bed-rest thyroidectomy, this must be considered as offering some hope of a more prolonged active life.

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R. Dufficy Friedlander, M.D. (University of California Medical School, San Francisco).—In the small number of cases selected by Doctors Pettis and Sorsky, the results are comparable to those obtained elsewhere following total ablation of the thyroid gland for heart disease.

Thyroidectomy for heart disease is still being tried by our various confrères, as evidenced by a recent paper by Bankoff to London and Manchester (Arch. f. Klin. Chir., February 20, 1935), who not only reports excellent results in cardiacs following total thyroidectomy, but equally successful results following subtotal thyroidectomy in patients with paroxysmal tachycardia, neurasthenia and cardiac asthma. The latter procedure must certainly be looked upon with question at the present time.

The results reported by the original workers in this field (Blumgart, Levine, Cutler, Berlin, et al.) have been very encouraging in their follow-up studies for the first year, and it will undoubtedly be very enlightening to see the results of further follow-up examinations in the future. At the present time, Levine is certainly not so enthusiastic about this form of treatment in congestive failure as he was originally. He believes that no cardiac should be subjected to the operation who can be made comfortable otherwise. In the group of cases that I had the opportunity of seeing at the Peter Bent Brigham Hospital during the years 1932 to 1934, the most gratifying results were obtained among patients with severe uncomplicated angina pectoris. In many, the relief from pain was dramatic. A recent communication from Dr. E. C. Eppinger, a former associate at the Peter Bent Brigham Hospital, informs me that some of these patients are having recurrences of substernal distress after two years. Nevertheless, if the procedure can provide the patient a comfortable life for two years, it must still be considered a valuable form of therapy when other measures fail.

These results again must raise the controversy as to the mechanism of relief of pain in angina. Is this return of pain due to regeneration of the previously damaged sympathetic nerve fibers, or is it due to the inherent progress of the basic pathologic process? This question can only be answered by further observations and investigations on the part of those interested in this work.

A most important factor that is likely to be neglected and must be seriously considered, is the after-care of these patients. One must continue to treat them as cardiacs, and, additionally, one frequently must treat the unpleasant sequelae of myxedema, despite the minimization of these symptoms in the literature. This involves a nicety of therapeutic management, which must be balanced between a return of congestive failure as a result of overmedication with thyroid substance or hypothyroid symptoms due to undermedication. In addition, it must be remembered that the basal metabolic rate in hypothyroid or myxedematous individuals may not be very low in the presence of dyspnea or a diminished vital capacity.

It seems apparent that, as we see and hear more of the results of total thyroidectomy for cardiac disease, the limitations of this form of therapy have become more pronounced. In the future, the selection of suitable patients will probably be narrowed down to those individuals with angina pectoris, without other cardiac complications, who would be able to lead a useful life in the absence of disabling anginal pain. With regard to patients in congestive failure, one can only say that in this group the selection of proper cases is much more difficult and demands a high degree of clinical judgment.

CORPORATIONS CANNOT PRACTICE MEDICINE IN CALIFORNIA*

RECENT OPINION HANDED DOWN BY A CALIFORNIA DISTRICT COURT OF APPEAL

Explanatory Note.—On December 12, 1935, the District Court of Appeal, First Appellate District, handed down an opinion confirming the basic points included in previous California Superior Court actions in which the right of a corporation to practice medicine had been brought up for consideration. The present opinion on that point by a higher court, with its references to the activities of a corporation seeking approval of the Insurance Commissioner of the State of California of policy forms and thus to engage in the business of selling "health insurance policies" that presumably provide medical service and hospitalization benefits merits publication space among the original articles, in order to give it a place in the literature. The editor is indebted to Mr. Hartley F. Peart, general counsel of the California Medical Association for early proof sheets of the opinion. Mr. Peart appeared in the case at the direction of the Council, as one of the *amici curiae* for appellant (Samuel L. Carpenter, Jr., Insurance Commissioner), represented by Attorney-General U. S. Webb.

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* A Superior Court opinion involving this principle appeared in the December, 1935, issue of California and Western Medicine, page 460.

The opinion of Justice Spence, concurred in by the other members of the court, Presiding Justice Nourse and Justice Sturtevant, follows:[*]

Civil No. 9875. First Appellate District, Division Two

December 12, 1935

Pacific Employers Insurance Company (a Corporation), Petitioner and Respondent, v. Samuel L. Carpenter, Jr., substituted for E. Forest Mitchell, as Insurance Commissioner of the State of California, Respondent and Appellant.

San Francisco County—John J. Van Nostrand, Judge.

For Appellant—U. S. Webb, Attorney-General; Neil Cunningham, Deputy Attorney-General.

For Respondent—F. Britton McConnell, Christopher M. Bradley.

Amici Curiae for Appellant—Hartley F. Peart, Howard Hassard, A. B. Bianchi, Anthony J. Kennedy.

PETITIONER A CORPORATION: ITS PLEA

Petitioner is an insurance corporation qualified under the laws of this state to engage in the business of accident and health insurance. In 1931, it obtained approval by the insurance commissioner of one of its policy forms designated as MSP-2. (See Stats. 1917, p. 957.) In 1934, it sought approval of its form designated as MSP-5. It is agreed that, with certain additions, this last-mentioned form was substantially the same as the form previously approved. The question of the legality of these forms was then raised and was decided by the insurance commissioner adversely to petitioner. Form MSP-5 was, therefore, disapproved by the insurance commissioner and the approval theretofore given of form MSP-2 was revoked. Thereupon petitioner filed his petition for a writ of mandate in the superior court seeking to compel the respondent insurance commissioner to approve said forms. Copies of said forms were attached to the petition. Respondent filed a demurrer to the petition, which demurrer was overruled and respondent was given time to answer. Respondent failed to answer and the trial court thereafter entered judgment directing the writ to issue as prayed. This appeal is taken from said judgment by the respondent insurance commissioner and, in order to avoid confusion, we will refer to the parties as petitioner and respondent throughout this opinion.

CONTENTIONS OF RESPONDENTS

The respondent commissioner and *amici curiae* contend that the action of the commissioner was justified, as the approval and issuance of the policies would result in petitioner's engaging in the unlawful practice of medicine and dentistry. Petitioner, on the other hand, contends that the issuance of these policies would not result in petitioner's engaging in the unlawful practice of medicine and dentistry. It claims that the policies are purely indemnity contracts containing all the "standard provisions" prescribed by statute (Stats. 1917, p. 957 and that the respondent commissioner "acted in an unjust, arbitrary manner and thus without lawful authority" in withholding approval of said policies. It therefore appears that the main question for consideration is whether the issuance of the policies would result in such unlawful practice as claimed by the respondent commissioner.

COURT'S CITATION OF AUTHORITIES ON ILLEGALITY OF PRACTICE OF MEDICINE BY A CORPORATION

Before setting forth the terms of the policies, it may be stated that it is well settled that neither a corporation nor any other unlicensed person or entity may engage, directly or indirectly, in the practice of certain learned professions including the legal, medical, and dental professions. (*Painless Parker v. Board of Dental Examiners,* 216 Cal. 285; *People* v. *Merchants' Protective Corporation,* 189 Cal. 531; *Pilger* v. *City of Paris Dry Goods Co.,* 86 Cal. App. 277; *People* v. *California Protective Corporation,* 76 Cal. App. 354; *In re Eastern Idaho Loan & Trust Co.,* 288 Pac. 157; *In re Otterness,* 232 N. W. 318; *People* v. *Association of Real Estate Taxpayers,* 187 N. E. 823; *Unger* v. *Landlords' Management Corporation,* 168 Atl. 229; *People* v. *John H. Woodbury Dermatological Institute,* 85 N. E. 697; *State* v. *Baker,* 235 N. W. 313; *Godfrey* v. *Medical Society of New York County,* 164 N. Y. S. 846; *People* v. *Painless Parker Dentist,* 275 Pac. 928; *State* v. *Bailey Dental Co.,* 234 N. W. 260; *State Board of Dental Examiners* v. *Savelle,* 8 Pac. [2d] 693; *State Board of Dental Examiners* v. *Miller,* 8 Pac. [2d] 699; *Hannon* v. *Siegel-Cooper* Co., 60 N. E. 597; *Winslow* v. *Kansas State Board of Dental Examiners,* 223 Pac. 308; *State* v. *Laylin,* 3 Ohio Nisi Prius [N. S.] 185, affirmed 76 N. E. 567; 6A Cal. Jur., p. 1260, Sec. 722; 14A Cor. Jur., pp. 296, 297, 298, Sec. 2145.) Under the foregoing authorities it is clearly declared unlawful for a corporation to indirectly practice any of said professions for profit by engaging professional men to perform professional services for those with whom the corporation contracts to furnish such services. In other words, said authorities declare that said professions are not open to commercial exploitation, as it is said to be against public policy to permit a "middleman" to intervene for profit in establishing the professional relationships between the members of said professions and the members of the public. (*Hightower* v. *Detroit Edison Co.,* 247 N. W. 97.)

In *Painless Parker* v. *Board of Dental Examiners,* 216 Cal. 285, the court said at page 298: "The practice of dentistry is not open to commercial exploitation. Such would be its fate if the methods adopted by petitioner should become general. That a corporation may not engage in the practice of law, medicine or dentistry is a settled question in this state. None of those professions which involves a relationship of a personal as well as a professional character, which has to do with personal privacy, can be placed in the same category as druggists, architects, or other vocations where no such relationship exists."

In *Pilger* v. *City of Paris Dry Goods Co.,* 86 Cal. App. 277, at pages 281 and 282, the court said: "A corporation can neither practice law nor hire lawyers to carry on the business of practicing law for it, any more than it can practice medicine or dentistry by hiring doctors or dentists to act for it."

The subject is treated in 6A California Jurisprudence, page 1260, as follows: "There are certain professional occupations which a corporation is functionally incapable of engaging in, such as the practice of law, medicine, and dentistry. A corporation is incapable of the relation of personal confidence and trust requisite to the attorney's relation to his client, and this is also true of the other professions in which there is a personal confidence. A corporation cannot evade these rules by hiring others to perform professional functions." The subject is also considered in 14A Corpus Juris on pages 296, 297 and 298, and after stating that there are statutes in many states which prohibit corporations from practicing said professions, it is declared that, "Such statutes are merely confirmatory of the already existing law."

PROVISIONS CONTAINED IN THE CORPORATION'S POLICIES

We now turn to a consideration of the policies before us. These policies are substantially the same for the purposes of this discussion, and we will confine our consideration to policy form MSP-5. Said policy was entitled "Medical Service Policy." It provided for "Aggregate Service Benefits $1,250" and for "Accidental Death Benefits $1,000," payable in the manner hereinafter described. No provision was made for the payment of any disability benefits. The material provisions of said policy were as follows:

> Pacific Employers Insurance Company . . . agrees . . . that (the insured) is entitled to, and the company agrees to pay for:

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[*] Editor's Note.—The subheadings have been inserted by the editor.

Medical Services.—In the manner and to the extent herein provided in the event of disease or injury, which may have inception after the effective date hereof and while this policy is in force, and which does not arise out of the occupation of the insured so as to come within the provisions of any Workmen's Compensation Law, scheme or plan.

Aggregate Service Benefits $1,250.—The total amount of liability of the company payable for medical, surgical, hospital and other services combined, either consecutively or in the aggregate, shall in no event exceed the amount specified above as aggregate service benefits, during any twelve month period from the date of this policy or from any anniversary date thereof.

Service Conditions.—The company shall appoint a medical director who shall be a licensed physician and surgeon and the term "medical director" used herein shall mean only such physician and surgeon appointed by the company in writing and while such appointment is in effect and unrevoked.

The company or its medical director shall make written appointment of licensed physicians and surgeons to render services in accordance with the provisions hereof who shall be termed "designated physician." The company or its medical director shall also make written appointment of licensed dentists, oculists and optometrists to render service in accordance with the provisions hereof who shall be termed "designated specialist." The terms "designated physician" and/or * "designated specialist" used herein shall mean only such physicians, surgeons, dentists, oculists and optometrists so appointed and while such appointment is in effect and unrevoked.

Physicians and Surgeons, Hospital and Other Services Provided.—Medical or surgical treatment by the medical director or a designated physician and hospitalization and the services of consultants and specialists when authorized by the medical director as hereinafter provided:

Office.—The insured is entitled to office care for a period not exceeding fifty-two (52) weeks for any one disease or injury or complications thereof for the purpose of treatment of the insured therefor and may call at the offices of the medical director or any designated physician during office hours for physical examination, diagnosis and treatment which shall include:

Any recognized diagnostic, preventive and curative medical and surgical measure, also necessary drugs, dressings and other materials, when dispensed by the attending physician, x-rays, massage, diathermy, ultra violet and other physio-therapeutical treatments, microscopical and other laboratory tests and analyses.

Home.—The insured is entitled to care at his or her home, at any time, day or night, for a period not exceeding twenty-six (26) weeks for any one disease or injury or complications thereof by a designated physician and to the services of consultants and specialists when authorized by the medical director, when the insured is necessarily confined to bed or unable to call at the offices of the medical director or any designated physician.

Emergency Treatment.—In case of extreme emergency (where any delay may prove fatal or cause additional disability) the insured may call the nearest physician (M. D.) for first aid only. For such emergency treatment an allowance will be made to the attending physician in accordance with the schedule of fees adopted by the company, providing the total amount for such emergency service shall not exceed $25. All further treatments must be rendered by a physician or surgeon approved by the company.

Health Preservation and Life Extension Service.—The insured is entitled to annual complete physical examination at the office of the medical director or any designated physician and to consultation at such offices at any time while this policy is in force relative to proper health preservation and life extension measures.

Dental Service.—The insured is entitled to annual examination and cleaning of the teeth by designated specialists.

Oculist and Optometrist Service.—The insured is entitled to annual examination of the eyes with prescription for glasses, also treatment for acute eye disease and injuries by designated specialists.

Additional Provisions.—The insured is entitled to the medical service herein specified only when under the exclusive care and supervision of the medical director and/or designated physician and/or designated specialist. In the event that the insured places himself under the care of any person other than the medical director and/or a designated physician and/or a designated specialist, except as otherwise herein provided, the rights of the insured to all further benefits under this policy shall forthwith terminate.

With regard to payment of the benefits under the policy, the policy itself provided, "Indemnity for loss of life of the insured is payable to the beneficiary if surviving the insured, and otherwise to the estate of the insured. All other indemnities of this policy are payable to the insured." It should be noted, however, that the application form which was attached to and made a part of the policy, contained the following provision: "I hereby request and authorize the company to pay any indemnities due me under any policy issued upon this application directly to the physicians, institutions or agencies rendering services. This request and authority is revokable by written notice to the company at any time, but such notice shall not effect the above request and authority with respect to medical services for any condition or its complications having inception prior to such written notice."

COURT'S COMMENTS ON THE POLICY SUBMITTED

Taking the policy by its four corners and considering all of its provisions, including those above set forth, we cannot escape the conclusion that it is basically and primarily an agreement by petitioner, in consideration of the premium paid by the insured, to furnish the designated professional services through its appointed staff, consisting of its medical director, its designated physicians and its designated specialists. It necessarily follows that the issuance of such policies would result in petitioner's engaging in the unlawful practice of at least two of the learned professions, to wit, medicine and dentistry.

Petitioner takes the position that the policy constitutes a 'contract of indemnity between the insurer and the assured—nothing more," but this position may not be sustained. It is true that the policy contains certain provisions regarding the payment of indemnities as required in all standard form contracts, but the policy is more than a mere contract of indemnity. We believe petitioner's own designation of the policy as a "Medical Service Policy" more nearly describes the true nature of the agreement. It is essentially an agreement by petitioner to furnish medical services and other professional services through its own appointed staff of professional men rather than an agreement to indemnify petitioner against indebtedness incurred by the insured for such services with professional men of his own choosing.

CORPORATION'S APPOINTMENT OF A "MEDICAL DIRECTOR" AND OTHER "PHYSICIANS AND SPECIALISTS"

We believe that an examination of the various provisions of the policy fully sustain the conclusions above set forth. Throughout this "Medical Service Policy" it is specified that "the insured is entitled to" various professional services, including medical and dental services, under the terms and conditions set forth. One of the main headings of the policy reads, "Physicians and Surgeons, Hospital and Other Services Provided." It is provided that petitioner will appoint a medical director, designated physicians and designated specialists "to render services in accordance with the provisions" of the policy and that "The insured is entitled to the medical service herein specified only when under the exclusive care and supervisions of the medical director and/or designated physician and/or designated specialist." It is further provided that if "the insured places himself under the care of any person" other than those appointed by petitioner, "the rights of all further benefits under this policy shall forthwith terminate." The only exception made in this connection is for emergency treatment for first aid only, in which event "an allowance will be made to the attending physician in accordance with the schedule of fees adopted by the company, providing the total amount for such emergency treatment shall not exceed $25." The insured is further entitled to annual complete physical examination by petitioner's appointees and to office consultation at any time, to annual dental examination and cleaning of teeth by petitioner's appointees, and "to annual examination of the eyes with prescription for glasses, also treatment for acute eye diseases and injuries by designated specialists." It requires no further comment to show that the agreement was one by petitioner to furnish all the services mentioned other than first-aid treatment, through its own appointees.

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*An article on a recent Wisconsin Supreme Court opinion on the use of the words "and/or" is printed in this issue, on page 71.

PETITIONER'S MUCH ADO ABOUT A TECHNICAL INSERTION (LEGALLY NECESSARY)

Petitioner makes much of the fact that the so-called indemnities are payable to the insured under the terms of the policy and to the further fact that the provision contained in the application authorizing petitioner to pay the so-called indemnities directly to its appointees may be revoked at any time by the insured. We attach but little significance to these considerations. The policy provision regarding the payment of indemnities to the insured was necessarily inserted because required by the Act (Stats. 1917, p. 957), and the provision in the application was no doubt inserted to modify the requirement of the Act as far as possible. It is apparent that the appointees of petitioner wer eto be compensated according to a schedule of fees adopted by petitioner and not be liable to its appointees for services rendered to the policyholders. The authorization of direct payment in the application was merely a convenient method of insuring payment to its appointees for services rendered to the policyholder and of avoiding the possibility of being required to pay both the policyholder and its appointees in the event that the policyholder failed to pay said appointees after receiving the so-called indemnities from the petitioner. It may be further noted that the notice of revocation by the insured was not to affect petitioner's authority with respect to services "for any condition or its complications having inception prior to such written notice."

PETITIONER CORPORATION'S OBJECTIONS TO USE OF WORD "EMPLOYEES" NOT VITAL

Petitioner also takes exception to the word "employees" as applied by respondent and *amici curiae* to petitioner's appointees. It may be true that a member of the learned professions may not be an "employee" of a corporation in the strict sense of the word, if that term is used to signify such right of control over the practitioner in the details of his work as to render the corporation liable under the doctrine of respondeat superior. (See *Pilger* v. *City of Paris*, supra.) But we need not quibble here over the use of terms as it is immaterial whether the appointed practitioners are termed employees, agents or appointees of the petitioner. The fact remains that petitioner's agreement was to furnish, in consideration of the premium paid by the insured, the services of doctors and dentists who were to be appointed, engaged, hired or employed by petitioner for the purpose of furnishing such services. Any such agreement is clearly condemned as unlawful and against public policy by the authorities above cited.

PETITIONER CORPORATION'S PLEA OF SOCIAL AND ECONOMIC NEED FOR HEALTH INSURANCE NOT LEGALLY SOUND

Petitioner discusses at some length the social and economic need for health insurance. We assume that petitioner refers to compulsory health insurance or some form of health insurance similar to that offered in petitioner's policy as health insurance policies are now provided for under the above-mentioned Act. It is a matter of common knowledge that the general subject of health insurance has provoked much discussion in recent years and it is also a matter of common knowledge that there is a great diversity of opinion concerning this subject. There are those who believe that the time has come when the rules so firmly established by the authorities above cited should be changed or modified in certain respects. We do not feel called upon, however, to discuss this question, for if the established rules are to be changed or modified, we deem it to be the province of the legislature rather than the courts to determine when, to what extent and under what conditions and restrictions, the change or modification should be made. In this connection it is of interest to note the legislative history of Senate Bill No. 471, introduced at the 1935 session of the legislature, as shown by the legislative journals of which we may take judicial notice. (*French* v. *Senate,* 146 Cal. 604.) Said bill was apparently introduced for the purpose of legalizing the type of insurance provided by the policy before us. In the *Assembly Journal* of May 23, 1935, at page 22, it appears that the assembly amended the bill to eliminate all reference to dentistry. In the *Assembly Journal* of June 12, 1935, at pages 42 to 46, it appears that the bill was amended to eliminate all reference to medicine and the following was added: "This chapter shall not authorize and nothing in this chapter shall be construed as authorizing any corporation or any insurer licensed hereunder or any person other than a holder of a valid and unrevoked physicians and surgeons certificate to practice medicine and surgery directly or indirectly or to furnish professional services of physicians and surgeons." The bill was thereafter permitted to die on the files without being brought up for final passage. It thus appears that the legislature was not yet prepared to change or modify the established rules prohibiting the corporate practice of medicine and dentistry.

PETITIONER CORPORATION'S CITATIONS OF AUTHORITIES NOT PERTINENT

Petitioner cites and relies upon *Physicians' Defense Co.* v. *Cooper,* 199 Fed. 576. There the company failed to comply with the insurance laws requiring an insurance company to file a bond and to obtain a certificate of authority. The company claimed the right to do business without complying with the requirements of the insurance laws and sought an injunction against the insurance commissioner. This was denied. On appeal the court stated, "But one question is presented on this appeal, which is whether the company is transacting an insurance business within the meaning of the statutes of California relating to the subject." The court decided that the company was transacting an insurance business and affirmed the judgment. That case is not in point as no question was raised concerning the legality of the company's contract and said question was not considered or determined by the court. Petitioner also relies upon the language of the court in *Pilger* v. *City of Paris Dry Goods Co.,* 86 Cal. App. 277, at page 283, where it is indicated that a corporation may undertake to furnish the services of a physician. It is sufficient to state that said language was not necessary to the decision but we may further state that if said language is to be construed as sustaining petitioner's position here, it is not in line with the great weight of authority.

COURT'S DECISION: PETITIONER CORPORATION NOT ENTITLED TO APPROVAL OF POLICY FORMS—JUDGMENT REVERSED

Upon oral argument, it was contended by petitioner that the power of the respondent insurance commissioner in determining whether the policy complied with the "requirements of law" was limited to a determination of whether the policy contained the standard provisions prescribed by the Act. (Stats. 1917, p. 957.) In other words, petitioner took the position that regardless of whether the approval and issuance of the policy would result in petitioner's engaging in the unlawful practice of medicine and dentistry, respondent was required to approve the policy if it contained the standard provisions prescribed by said Act. While we are of the opinion that this contention may not be sustained, we believe that in any event petitioner was not entitled to judgment directing the issuance of the writ of mandate. If the approval and issuance of petitioner's policy would result in petitioner's engaging in the unlawful practice of medicine and dentistry as above stated, then the writ should not issue to compel the approval of the policy as the writ should never issue to compel an act which will tend to aid an unlawful purpose. (16 Cal. Jur., p. 780.)

The judgment is reversed.

SPENCE, J.

We concur:
NOURSE, P. J.
STURTEVANT, J.

THE LURE OF MEDICAL HISTORY†

HISTORICAL GYNECOLOGY

By Clement H. Arnold, M.D.
San Francisco

Ever since man emerged from out the evolutional murk of time into the dim, crepuscular foreshadowings of his present form, his young born viviparous and altricial, the females of his species have been subject to all the same affliction as their mates. They have, however, in addition been forced to endure, as part of their sacrifice to the perpetuation of the race, immediate and remote misadventures of their birth tracts.

Practically all those anatomical and pathologic changes with which we are today familiar, barring the ravages of certain infections, existed then as now. Paleopathology has revealed the presence of degenerative diseases which have so often been puritanically relegated to our own sinful era when Bacchus, Vulcan, and Venus were supposed to be the reigning deities, and not in the "good old days," when virtue ruled unspotted and every prospect pleased.

These revelations are somewhat heartening to our pride of progress, rid us of an inferiority complex, and gild our hopes for the future.

EARLIEST WRITTEN RECORDS

In seeking material for some historical notes on ancient gynecology,[1] we must travel back to the sixteenth century, B. C., and examine the pages of the Papyrus Ebers. This papyrus is the oldest work on medicine which we possess, and its pages contain some real facts concerning gynecology; unfortunately the Hermetic Book, somewhat older, which was devoted to the consideration of the diseases of women, was not preserved.

Next we find two Hindu works, the "Charaka Veda" and the "Sushruta Veda," and since some portions date back to beyond 900 B. C., and as they contain passages in great number bearing on the diseases of women, they enable us to see the great antiquity of certain methods and therapeutic agents used in the treatment of gynecological cases at the present time; notably tampons, the cautery, pessaries, and astringent washes.

We then come to the Grecian period and to the genuine works of Hippocrates (460-377 B. C.), which, however, contain little of interest. On the other hand, among the works attributed to Hippocrates, but now considered spurious, we have several treatises on gynecology which contain a surprising number of accurate observations, and convince us that gynecology was a branch of medicine that had received a large share of attention among the Greeks.

From Greece we travel to Alexandria, third and fourth centuries, B. C.; but time has not preserved for us any of the many treatises which we have reason to believe were written on the diseases of women by those who studied in the schools of the Egyptian Athens.

THE ROMAN PERIOD

In the Roman period, next, the first of the writers was Celsus, 50 B. C. to 7 A. D., who lived in the reigns of Augustus and Tiberius, and who has left us, in his most gracefully written work on medicine, some observations on the anatomy of the uterus, and some descriptions of gynecological operations. Pliny, born in 23 A. D., and who perished in the eruption of Vesuvius, 79 A. D., has recorded, in his encyclopedic work on natural history, many therapeutic agents in use in the treatment of the diseases of women. Soranus of Ephesus, who flourished in the reigns of Trajan and Hadrian, has handed down a most brilliant and interesting work on gynecology and obstetrics; while Rufus, also of Ephesus, has given a catalogue of terms applied to the various parts of female organs of generation.

Traveling down the stream of time, we meet with Aretaeus of the first, and Dioscorides of the first or second century, and we find something of interest relative to gynecology in the works of both these writers. We next come to the illustrious Galen, born 130 A. D., whose monumental labors, however, have not enriched the field of gynecology, although we find among his genuine works an interesting treatise on the dissection of the female genital organs, as well as many observations on the physiology of these parts.

IN THE FAR EAST

Leaving Italy, we turn once more to the East. Under the Byzantine rule we find Oribasius, 326 to 403 A. D., compiling his vast encyclopedia of seventy volumes, from whose pages we are able to glean some facts about our subject. At the same Court, in the sixth century, Aetius composed his medical and surgical treatises in sixteen books (translated into Latin in 1542), the last of which is devoted to the diseases of women. This work is of the greatest importance; for, while it contains much that Soranus has given, it presents at the same time chapters from such authors as Archigenes and Philumenus, whose works have perished forever. We also notice the curious work of Moschion, which is now known to be only an abbreviation of Soranus.

Lastly we come to the seventh century and to the brilliant résumé of ancient medicine contained in the great work of Paulus Aegineta.

THE DARK AGES

Here our labors cease; for with the death of Paul the Dark Ages began, lasting almost 1,500 years, and the gynecology contained in the works of the Arabian authors is only a servile copy from the pages of those who had preceded them.

Hippocrates says that "if the mouth of the womb gapes in a manner contrary to nature, the menstrual periods become more abundant and viscid, they come on more frequently than normal, and the patient suffers from pain in the lower part of the abdomen and in the loins. The treatment should be by medicated pessaries and astringents."

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† A Twenty-five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

Soranus states that an erosion which succeeds an ulceration may be the cause of menorrhagia and metrorrhagia.

Aetius tells us that fissures around the mouth of the womb are caused by difficult labors on account of the size of the child's head: in the treatment, be it observed, Aetius says that all surgical interference and medicines of an irritating nature are to be avoided, for such induce inflammation.

The descriptions given us by the author of the Hippocratic works on gynecology, of inflammation of the uterus, refer to both acute and chronic cervicitis and metritis; and the clinical pictures that he draws are most excellent and accurate.

Soranus has given us a most elaborate account of the several symptoms and signs which are to be found following inflammation of the various regions of the uterus and cervix. His descriptions embrace a consideration of parametritis and pelvic abscess. Aetius also deals at length with the same subjects.

It is interesting beyond measure that Hippocrates, Aetius, and Oribasius all mention the various degrees of cancer of the womb, stating that, when advanced, the disease is incurable. Hippocrates mentions its (*cancer's*) possible relationship to chronic irritation, yet he warns the surgeon against interference in a case of *"malignant thymus,"* and *"malignant polypus,"* of the womb; but Oribasius advises the use of the cautery in case of malignant thymus. He it was (325 A. D.), after making some lengthy remarks about the cervix uteri, who says that hardness of the cervix is a symptom of three different conditions: dryness, inflammation and scirrhus of the womb, the last of which, from his description, almost certainly includes carcinoma in some form.

GONORRHEA

The period at which gonorrhea first attacked the human race is not known. But since we recognize what an enormous factor this affection plays in the etiology of the diseases of women, it is necessary to examine those passages in ancient writers which apparently refer to the disease; for if gonorrhea then existed—and we believe that it did—the women in the past must have suffered, for certain, as the result of this disease, all those complications, such as tubal disease and acute metritis, with which we are familiar at the present day.

Moses, in the fifteenth chapter of Leviticus, says: "When a man hath a running issue out of his flesh, because of his issue he is unclean" (Verse 2). The septuagint version renders "Hazzab," the man with the issue, by ὁ γονοϱϱυής the man with a gonorrhea: with regard to the term ὁ γονοϱϱεύς, we find this term was used by Rufus, Aetius, and Paulus to express a condition of spermatorrhea, not of gonorrhea, as we now understand the term; and Galen ("de Locis Affect" Vi, 6) says that gonorrhea is an involuntary excretion of sperm and is derived from γονέ seed, and ϱέω, to run. But Moses does not mean that the issue mentioned in verse 2, is spermatorrhea, because that affection is mentioned in verse 16, and verse 32 says: "This is the law of him that hath an issue, and of him whose seed goeth from him, and he is defiled therewith."

In Deuteronomy (xxiv 1) it is stated that if a man should marry a woman, "and it come to pass that she find no favor in his eyes, because he hath found some uncleanness in her, let him write her a bill of divorcement."

Now if gonorrhea existed (and we have said above we have every good reason to prove that it did) it follows naturally that Bartholinian gland abscesses existed, as did also vaginitis, cervicitis, salpingitis, endometritis, and pyo-salpinx. There can be little doubt that some of these diseases were treated, and it is probable that the priest-physicians, if they lacked gynecological material from the modesty of the Egyptian women (though the revels of the feast of Bubastis in later years show us little modesty), could have obtained plenty of subjects among the prostitutes of the times, who were then a semireligious cult often sequestered in the temples, and would naturally be desirous of being cured of their complaints.

Halban[2] gives an account of the knowledge of gonorrhea and infections of the uterus and cervix among the ancient Jews.

Among the Romans, women who could not have intercourse, either on account of the menses or on account of disease of the genitals, were termed "ancunulentae," from "cunus," the vagina; and these prayed to Juno Fluonia, and were accustomed to use the "aster atticus." This plant is mentioned by Pliny as being a sovereign remedy for diseases of the groin. The Greeks termed it "Bubonion," while the Romans called it "Bubonium," and the word came to be used and applied to the disease for which it was given, whether in the case of male or female; this is the origin of our term, "bubo." The Romans said of a female, who communicated a disease to a man, "Haec te imbubinat." Strangely enough, among the Romans venereal disease did not appear to be so prevalent among prostitutes as among others. Parenthetically, Roman prostitutes were supposed to wear "yellow wigs," a possible origin for the color of the Board of Health flag, and an explanation as to *"Why gentlemen prefer blondes!"*

Roman doctors declined to treat "secret diseases," and, therefore, the rich were treated by their own slave doctors, while the poor were driven into seclusion; a custom, in fact, that prevailed among the children of Israel, who "were to put out of the camp every leper, and everyone that hath an issue." In 1497, James IV of Scotland, in consequence of the frightful prevalence of the venereal diseases in Edinburgh, issued the celebrated proclamation banishing the infected from the city. But it is probable that if the Roman doctors may have declined to attend patients afflicted with venereal diseases, the "archiatri," who acted somewhat after the fashion of the dispensary surgeon of the present day, treated those diseases embraced under the generic term, "morbus indecens," inasmuch as they were bound to treat the poor gratuitously, though they might charge the rich.

At subsequent periods this disease, gonorrhea, in men and women, and in many instances its complications of swelled testicle and cystitis were described with more or less detail by Mesus (904); by Ali Abbas, one of the Persian Magi (980); by Rhazes (852), and by Albacusis and others.

McKay states in conclusion: "Since writing the résumé on gonorrhea, we have been able to consult the Jerusalem Talmud, and the frequent references therein to gonorrhea confirms us in the opinion that this disease played an important part in the etiology of the diseases of women in ancient times."

Dr. Henry Harris of San Francisco has kindly called my attention to the fact that similar deductions may also be made from a study of passages in the Jewish Torah.

COMMENT

During the first two hundred years of the Byzantine period Pliny, Celsus, Dioscorides, Soranus, Caelius Aurelianus, Aertaeus, and Galen lived and wrote, and while the Roman power was at its zenith, during the Augustan period. Yet slowly and inevitably the power of Rome had begun to decline toward its nadir; and though the works of Galen represent the highest point to which medical science attained in ancient times, yet after his death (A. D. 200) we have a fall so abrupt that we may say without exaggeration that the works we encounter for the next more than fifteen hundred years are but shadows of those written by Galen and his predecessors, and show, in their language, as in their subject-matter, the rapid decline of intellectual vigor and original research.

From these early times through the more than ten slumberous centuries of darkness in all human progress, when arm-chair philosophy and disputative dialectics reigned in place of observation and experimentation, we at last reach the beginnings of the nineteenth century with but little change and no advance. Then, gradually, we commence to note the adumbrations of efforts and works dealing with inflammation of the uterus and generative organs.

BENNETT'S WORK

In 1842 appeared a charming, simple, naïve and altogether delightful volume, entitled "A Practical Treatise on the Inflammation of the Uterus, Its Cervix and Appendages and on Its Connexion with Internal Diseases" by John Henry Bennett, M. D., London.

Its deliberate sentences, orotund phraseology and cultured periods, remind us most forcibly of the classically educated and dignified country bedside practitioner of an older age. Among many other headings the author has gathered together, somewhat oracularly, the extant practical knowledge of what was known at the time as "cervical fungous endometritis."

The venerable doctor whose aegis of success was the relief of human suffering, and surcease from pain, began upon a somewhat false premise of anatomical lack of knowledge, and built up a bit didactically his thesis of the pathology and treatment of cervicitis; accepting what he thought was of value from the ancients, discarding what appeared to him as valueless, and leavened it with his own observation and experience. Though we may smile somewhat patronizingly from the Parnassian heights of our questionably superior intelligence, he has made a convincingly practical and excellent job of it.

"The presence of cellular tissue in the cervix," he says, "its greater vascularity as compared with the uterus, and the highly developed state of the mucous membrane lining it, are, in a pathological point of view, the most important anatomical peculiarities which it presents; generally speaking, both the mucous follicles and the vascular mucous network are simultaneously the seat of inflammation. The causes which give rise to inflammation of the cervix may be divided into 'predisposing and efficient.'"

He mentions that pains in the lower part of the back, in the hips and thighs, are also generally mistaken for indications of constitutional weakness. Thus, our Nestorian gynecologist proceeds through "Errors in Diagnosis," "Inflammation and Ulceration in the Virgin," "During Pregnancy," "Neck of the Uterus in Advanced Life," and so on; yet, despite what we know existed in the observations recorded in books which antedated him by centuries, we find practically no mention of gonorrhea; no evidence of microscopic examinations, and with no conception, even, to approach those of the ancient Rabbins in regard to septic invaders, nor of the relationship of chronic inflammation to malignancy; yet, and withal, as far as it goes, it is an excellent guide to the practical gynecology, its régime and treatment, of his years.

"The secretion of the ulcerated surfaces, wherever its seat, is necessarily purulent. The pus may be thick and 'of a healthy yellow color' (Laudable pus), or it may be thin, sanious or ichorous according to the state of the ulceration."

Doctor Bennett may be taken as the altogether admirable prototype of the better class gynecologist of his time. Despite their histological, bacteriological and pathological ignorance, these old gentlemen were well informed in a modern sense regarding the pains, disabilities, and available methods of practical treatment, the whole being complemented by a profound psychological knowledge of human nature.

"The pain occasioned by inflammation and ulceration of the uterine neck is seldom found behind the pubis, the anatomical seat of the diseased cervix, but in one or both of the ovarian regions, in the lower lumbar and upper sacral region. The uninterrupted persistence of one or all of these pains—is an important feature of their character."

After an exposition of local antiphlogistic measures, such as heat, hot milk and carbolized water injections, silver nitrate placed in the cervical canal, alum insufflations and other astringent washes of an almost inquisitorial nature, he concludes hopefully and benignly, "inflammatory ulceration of the cervix uteri, not being, *per se,* a fatal disease."

These men antedated by some decades the modern throes of gynecological rebirth, yet their case records demonstrate a pleasing number of probable cures, and a large number of relieved patients, for whom life was made more endurable; and more pleasing still, they were the recipients of vastly more gratitude and appreciative recognition than obtains in this age of hypersophistication.

THE MODERN PERIOD

Now the flickering torch of revivified knowledge in the modern phases of gynecology began to gleam. Lawson Tait, Sims, McDowell, and illustrious others, all infused increased energy into the shedding of light, and then Howard Kelly, in this country, gave it its greatest encouragement, impetus, and brilliance.

It is interesting and thought-provoking to observe that from even the earliest times down to our own, there appear to be cyclical swingings to and fro, hand in hand with all the succeeding advances in medical, chemical and biological science; now to that side which advocates the complete destruction and extirpation of tissue and its contained noxa, regardless of fact or function, then to the side of the chemical disinfectants directed chiefly against the bacterium itself. Then, ever and anon, "the still small voice" gains volume through the incisive, reverberations of surgical and semi-surgical argument, pleading, "Hold! why not give the tissues themselves a chance? Surely, Mother Nature, if relieved of some overburden and her intrinsic reparative ability abetted, can carry on." For a while the more moderate methods tending to increase local tissue resistance, rather than mutilative ablations, prevail; then, behold, some new, supposedly powerful germicide is "hozzanaed" forth under the all-puissant trade-mark of some grandiose pharmaceutical house, garnished in the flamboyant banners and gaudy clamant fustian of intemperate advertising; poor critique, combined with exaggerated claims of what it can do *in vitro,* presented in pseudoscientific reports, and the whole "devil's dance" whirls on again until the next generation, perhaps, fortified and informed by experimentation, tragic failures and numerous reliable clinical reports decides again for "common sense."

IN CONCLUSION

An historical and philosophical purview of this subject, similar to that of any other of life's activities, is always intriguing and enlightening. In the illumination of our present attitude, modern *modi operandi,* and following intimately the dictum of Huxley, "that science is organized common sense," leavened with knowledge, it is noteworthy and arresting that the same "natural" methods that we use today—heat, hyperemia, astringent applications, posture, hygiene, packs, pessaries, etc., were in use in the dim vistas of the Babylonian desert and on the uptilted escarpments of the Oxus River when civilization was germinating; and that when these men, too, used extreme measures their practice, in keeping with their more heroic age, was, perhaps, more drastic in degree but differing not at all in kind from ours.

2000 Van Ness Avenue.

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CLINICAL NOTES AND CASE REPORTS

BREAST SUPPORT

By Harry S. Fist, M.D.
Los Angeles

An ideal breast binder would hold the breasts in the position which is normal in lower animals. In prehistoric days, when the human race walked on all-fours, breast binders were not needed. Now, because of the upright posture, the breasts drop against the chest, so that milk flow and lymph drainage are interrupted.

For years physicians have recognized the necessity for a breast support, especially during the period after childbirth, when breasts are engorged and painful, and secretion of milk begins.

The first breast binders were merely strips of cloth pinned around the chest, pressing on the breasts, interfering with axillary lymph drainage. Later, binders were shaped to the body more or less, but the first really satisfactory breast support was described in 1919 by Dr. Alfred C. Beck.[1] This binder originally consisted of a piece of old sheet about eighteen inches wide and fifty-four inches long. The middle portion covered the patient's back, and each end was brought across the breast of one side and over the opposite shoulder, where it was pinned to the top of the back portion of the cloth. A towel was used as a pad. The flaps were pinned together in front at top and bottom. This binder lifted the breasts

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[1] *Medical Times,* 1919.

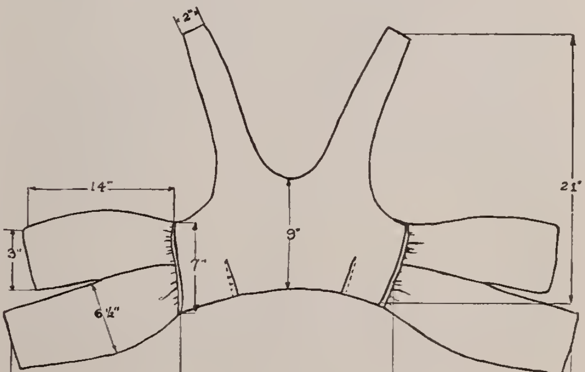

Fig. 1.—The binder with dimensions.

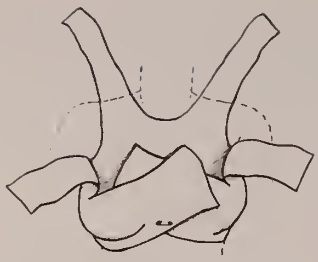

Fig. 2

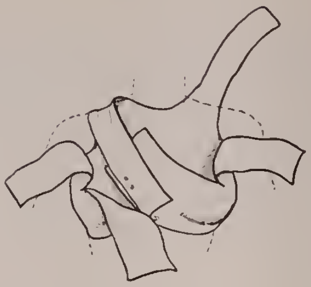

Fig. 3

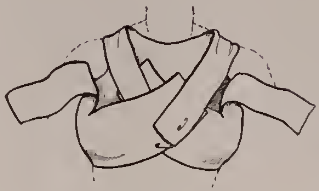

Fig. 4

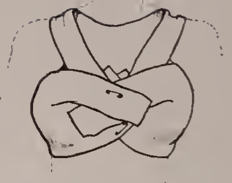

Fig. 5

Fig. 2.—Anchored by pin at bottom.

Fig. 3.—One shoulder strap pinned to lower margin of opposite lower flap.

Fig. 4.—Second shoulder strap pinned to lower margin of opposite lower flap.

Fig. 5.—Upper flaps folded across and held with one pin through all thicknesses.

without undue pressure, but was bulky and uncomfortable in the back, especially at the spots where it was pinned.

Later, Doctor Beck improved this binder by dividing each end of the cloth into a longer lower flap and a shorter upper flap. By bringing the lower flaps up and pinning over the opposite shoulder, a support was formed which assumed the natural form of the breasts, holding them up without pressing them against the chest.

The author's binder utilizes the principles described by Beck, but adds the following changes: the back is shaped, and has long shoulder straps which permit pinning in the front so the patient may herself easily apply the binder. Bunching is avoided, and there are no lumps or safety pins in the back.

This binder, as illustrated (Fig. 1), has proved satisfactory in the maternity department of the Cedars of Lebanon Hospital for over three years, and is now in use in the Los Angeles General Hospital. It is satisfactory only when correctly applied. The author's method is as follows:

1. Place the binder around the body, with the large flat surface in back, and pin the lower flaps snugly together at the bottom to anchor the binder. (Fig. 2.)

2. Pin the lower edge of one lower flap to the shoulder strap of the opposite side, thus lifting one breast. (Fig. 3.)

3. Pin the lower edge of the other lower flap to the second shoulder strap, lifting the second breast. (Fig. 4.)

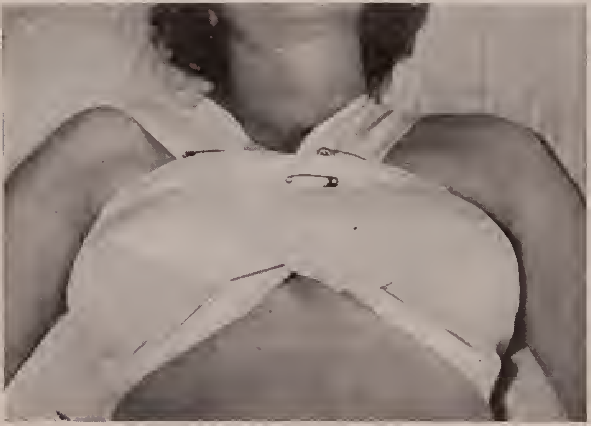

Fig. 6.—Photograph of binder as applied.

4. Fold both upper flaps across the upper portions of the breasts and pin in the middle through all layers of cloth. (Figs. 5 and 6.)

5. For nursing, simply unpin the upper flaps and that lower flap which supports the breast to be nursed. These two pins are easily replaced by the patient.

SUMMARY

This easily made binder, of unbleached muslin, is inexpensive, washable, adjustable, and comfortable, furnishing excellent breast support. It is especially useful for puerperal patients.*

1930 Wilshire Boulevard.

LIVER SUPPURATION

A SUMMARY: WITH CONCLUSIONS

By John W. Shuman, M.D.
Los Angeles

WHEN we see in a medical journal a lengthy article upon a subject that interests us, we turn to the end of it, and if there is a summary and a conclusion we read them; if not, we are apt to turn on. So herewith a summary:

SUMMARY

1. *Solitary Abscess.*

The single liver abscess is amebic in origin, and comes from the large intestine through the portal vein.

If we have a patient with a fever of unknown origin, who chills and sweats, has liver pains, dyspepsia and a loss of weight, amebic liver abscess should be thought of until we can prove otherwise. Looking through the fluoroscope in such a patient will show the right diaphragm higher and less movable than the left, if an abscess is present in the upper portion of the right lobe. The blood will show a leukocytosis in most instances. If, with the aid of a trocar, we can secure amebic pus, the diagnosis is made.

Surgical drainage should be instituted. Adequate emetin hydrochlorid in quantity sufficient is excellent medicine for amebic patients.

A large abscess causes the patient to lie on the right side or to insist upon being propped up; liver dullness is increased; there is rigidity of the upper right belly wall; and if the abscess is contacting the diaphragm there will be pleuritic symptoms.

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* Credit is due Miss Minnie Eichenberger for valuable assistance in designing this binder.

The liver should not be punctured until leukocythemia, pernicious anemia and scurvy have been excluded. A solitary abscess may be endured for years until the liver is but a shell. It may be cured spontaneously by rupture and drainage through the diaphragm and respiratory tract, or into and through the alimentary tract.

2. *Multiple Abscesses (Three Types).*

Their path of infection varies:

(*a*) Suppurative cholangeitis comes from the bile ducts, with small abscesses in the smaller bile ducts. The primary infection is usually associated with gall-stones, but may be due to parasites. Recently a nervous woman was operated upon for gall-stones. Following the cholecystectomy, she had the typical septicopyemic course, with right diaphragmatic pleurisy and a tender liver. Clinical diagnosis: "Postoperative liver suppuration." She has gone Christian Science for the time being.

(*b*) General septicemia and pyemia: Infection is through the blood stream. The onset of hepatic symptoms is sudden chills, fever, sweats, a painful and tender enlarged liver with slight jaundice, first noted in the sclera. If the infection is overwhelming, there will be no leukocytosis. The course is invariably fatal.

(*c*) Suppurative pylephlebitis: The infection in this group is in the area drained by the portal vein. In more than 50 per cent of these cases the primary focus is in the appendix. Rarer sites are piles and other rectal ills.

Numerous minute abscesses are present which, as time goes on, may coalesce, to produce a honeycomb appearance.

Differential diagnosis:

1. With empyema of the gall-bladder, jaundice is more common. It appears earlier and is more pronounced than in abscess. Unless the belly is too fat and the wall too tense, the swollen gall-bladder can be easily felt.

2. In intermittent hepatic fever there are periods of attacks of chills, fever and sweats, alternating with periods of fair health.

3. In syphilis of the liver the left lobe, as well as the right, is enlarged, the organ is nodular. There is often the history of chancre, and a positive Wassermann; and last, but not least, the therapeutic test.

4. Hydatid cyst of liver: Suppuration may occur, and that is an abscess.

5. Acute yellow atrophy, which is an advanced necrosis of all the liver cells, is characterized by jaundice, nervous symptoms, toxemia, and a small liver in the late stage.

CONCLUSIONS

Liver suppuration:

May be single or multiple.

It is always metastatic.

It is rarely diagnosed.

If multiple, it is fatal.

If single, the treatment is medical as well as surgical.

If multiple, the treatment is only palliative.

3780 Wilshire Boulevard.

CHEMICAL PERITONITIS

FOLLOWING INTRA-UTERINE INJECTION*

By E. M. Bingham, M.D.
Riverside
AND
O. I. Cutler, M.D.
Loma Linda

REPORT OF CASE

Mrs. H. B., a white woman of twenty-eight years with four children, was three days past her menstrual date. Upon the advice of a neighbor, she attempted to inject turpentine into the uterus, using a medicine dropper. The day before, she had tried turpentine on a tampon without any effect. The injection was followed immediately by severe pain in the right lower quadrant of the abdomen and low in the back. She used a plain water douche without relief, and in two hours the pain was so intense that a physician was called. He administered ether for one-half hour, gave morphine grain one-half, and called the ambulance.

The patient arrived at the Riverside County Hospital at 3 a. m., April 3, 1934. She was apparently suffering with severe pain in both lower quadrants of the abdomen, temperature 98.6 degrees, and pulse 128. There was marked abdominal tenderness and evidence of peritoneal irritation. There was no evidence of vaginal injury, but marked tenderness on bimanual examination. She was unable to void. At 8 a. m. she appeared to be more comfortable, following catheterization and application of ice to the lower abdomen. The urine showed a trace of albumen, and the blood count was 12,300 white cells, with 84 per cent polymorphonuclears. She was given sodium amytal grains six and slept for six hours, awakening with more severe pain and a temperature of 102 degrees. At that time there was some localization to the right side, beginning distention, and increasing polymorphonuclear leukocytosis. She was still unable to void. Expectant treatment was continued for another twenty-four hours, during which time all symptoms became more marked: pain uncontrolled by morphin; marked distention; a silent abdomen; restlessness; pulse, temperature, and leukocytes increasing, as indicated in Chart 1. There was no vomiting.

Faced with a patient in critical condition and an uncertain diagnosis, an exploratory laparotomy seemed indicated. This was done at 8:30 p. m., less than forty-eight hours after the onset, under spinal anesthesia. There was some preperitoneal edema and free fluid. The peritoneum was friable. The omentum showed some necrosis and was adhered to the pelvic organs by fresh adhesions. The abdominal cavity contained approximately a pint of serous fluid containing fibrin and some pus. There was a plastic exudate on the fundus of the uterus and both adnexa. The right fallopian tube was swollen twice the size of the left, and both were acutely inflamed. The uterus and cul-de-sac showed no evidence of trauma. The appendix was explored and found outside the inflammatory field. Both tubes and ovaries were removed and the abdomen closed with drains in the cul-de-sac.

The patient made an uneventful recovery, except for serous drainage during the first week. She was discharged in three weeks. Smears of the tissue removed showed no bacteria. Cultures of the abdominal fluid remained sterile. Urinalysis showed one gram of albumen with blood cells and casts on the first and second postoperative days, returning to normal at the end of a week.

An examination of the tissues removed showed that a corpus luteum in process of formation was present in one of the ovaries. The dilation noted in one of the fallopian tubes was due to exudate confined in it. This exudate was almost wholly serous. A light in-

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* From the Riverside County Hospital and the Department of Pathology, College of Medical Evangelists.

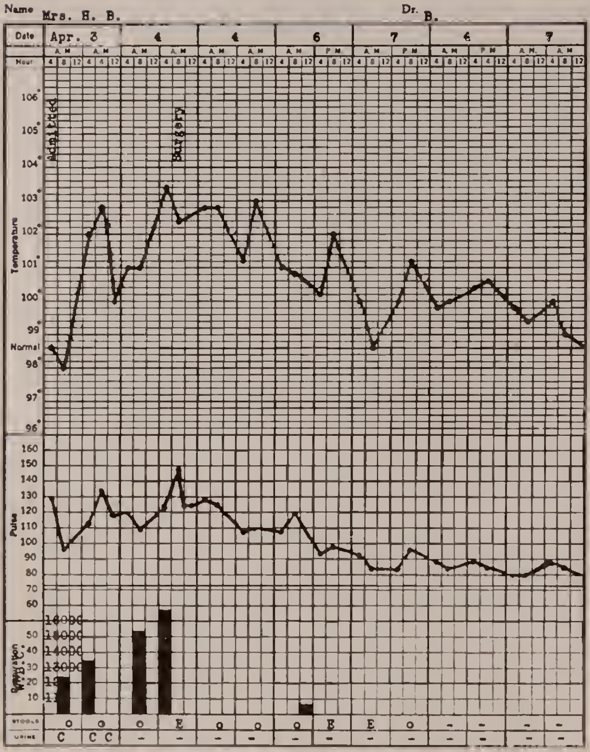

Chart. 1.—Pulse, temperature, and leucocyte record.

filtration of neutrophils and lymphocytes was present in the mucosa of the tube. A thin layer of very loose fibrinopurulent exudate was present on the external surfaces of the tubes and ovaries. The leukocytic content of this exudate was considerably less than is ordinarily seen in exudates when bacterial peritonitis is present. The exudate was undergoing organization, being already extensively invaded by fibroblasts.

COMMENT

The variety of methods used by the laity to produce abortion seem to be limited only by the number of agents in existence and the number of helpful neighbors. Upon admission, this patient appeared to be hysterical. Symptoms may have been masked by the large dose of morphin. As her condition became worse, chemical peritonitis was considered; but with the history of a small amount used, expectant treatment seemed advisable. A careful history appeared to eliminate the possibility of uterine or vaginal perforation. Acute salpingitis and ectopic pregnancy were considered because there was a history of an acute, transitory pain in the right side three days before. (What woman with four children in as many years does not have them?)

The diagnosis of chemical peritonitis may be debatable. A review of the literature shows that it is rarely made. The question of the patient's ability to inject anything into the cervix and uterus has been considered. The amount required to pass through the tubes into the abdominal cavity is small, known from radiographic procedures. Spasm of the uterus due to an irritant would reduce this amount. The onset and progress are compatible only with acute mechanical or chemical injury of a fallopian tube. The findings at operation and with the microscope were not those of septic peritonitis.

A search of the literature reveals no similar case. Peritonitis following intra-uterine injection of hypertonic saline to produce abortion is reported in the French literature by Bloch.[1] This patient recovered following total hysterectomy forty-eight hours later. No mention is made of bacteriology. The German literature[2] reports a second case which followed the use of soap solution, also with cure, following hysterectomy. Davis[3] mentions chemical irritants as an etiologic agent in producing aseptic peritonitis. He advises surgical intervention when symptoms are marked. Two cases, with death and chemical analysis at autopsy, are reported: one,[4] in 1869, followed the intra-uterine injection of "liquor ferri"; in the second,[5] in 1878, a solution of lead acetate was used.

CONCLUSIONS

The diagnosis of chemical, aseptic peritonitis in this case is based on: (*a*) Sudden, rapid onset of severe symptoms immediately following an attempt to inject turpentine into the uterus; (*b*) operative findings and pathology; (*c*) negative bacteriology; (*d*) prompt recovery, following surgical drainage.

Riverside County Hospital.
College of Medical Evangelists.

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[1] Bloch, G.-C.: Generalized Peritonitis Following Criminal Abortion, La Méd., Paris 8:7:522 (April), 1927.

[2] Runge (abstract): Unusual Injury of the Gravid Uterus, Deutsche Med. Wchnschr., 53:21:903 (May 20), 1927.

[3] Davis, Carl Henry: Diseases of the Peritoneum, Gynecology and Obstetrics, 2:18:1. W. F. Prior Co., Hagerstown, 1933.

[4] Von Haselberg: Death from Peritonitis Following Intra-uterine Injection, Verhandl. d. Gesellsch. f. Geburtshülfe, Berlin, 22:48, 1869.

[5] Spath, E.: Peritonitis and Death Due to Injection of Lead Acetate Solution Through the Tubes into the Peritoneal Cavity, Zentralbl. f. Gynak., 2:593, 1878.

Malpractice Protection.—The most cautious and conscientious doctor never knows when a disgruntled or scheming patient may sue him for malpractice. Although a doctor may be legally exonerated, his reputation inevitably suffers from the publicity. And the volume of such litigation, to the medical profession's alarm, constantly increases. Recently, in *Clinical Medicine and Surgery*, Dr. Isador Simon Trostler, Chicago roentgenologist, trotted out a few fundamental rules which, if scrupulously observed by doctors, he thought, might stem the tide of malpractice suits. Gist of his advice:

Never under any circumstances promise a cure or use language which might be construed as such a promise.

Be careful of diagnoses, and when there is doubt refrain from "affixing a label."

When calling a consultant select one who knows more than you do.

In surgical cases, in unfamiliar surroundings, see that a careful count of all sponges it kept all the time, and be sure that the count is verified before closing the incision.

If an operation is to be performed, have the patient, or his guardian, give consent in writing, or verbal consent in the presence of a witness.

Collect your fees when they are due. It is a well-recognized fact that many malpractice suits are started because physicians try to force payment from delinquent patients.

Do not become nervous. If things have gone wrong, do not inform the patient, his family or friends that an error has been committed. It is not necessary to misrepresent the condition, but it is easy to evade direct replies until you can determine the end-results.

Terminate your relations tactfully with patients who seem contentious or litigious.—*Time,* November 18, 1935.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

CANCER OF THE BREAST

RELATION OF CYSTIC DISEASE OF THE BREAST TO CANCER

Alson R. Kilgore, M. D. (490 Post Street, San Francisco).—A few years ago the precancerous potentialities of cystic disease in its various forms seemed well established. Although all types of cystic change present hyperplasia in the sense that the number of ducts and acini is increased, two great types may be distinguished on the basis of the behavior of the epithelial lining of individual gland units. In one the epithelium of the dilating cyst remains smooth, does not increase in thickness and in the larger cysts even disappears, leaving a bare fibrous wall. The second variety presents piling and folding of the epithelial lining (papillary single cysts, papillary cystadenoma, ducts filled with proliferated epithelium—Schimmelbusch's disease). The first may be regarded as nonhyperplastic, the second as hyperplastic, referring to the state of the epithelium and not to the number of gland units.

Since cancer comes only from epithelium, one would expect that nonhyperplastic cysts, with normal or diminished epithelium, would be unlikely to give rise to malignancy, while the hyperplastic cysts, with greatly increased and especially with abnormally growing epithelium, would be more often the site of cancer origin.

That these assumptions were true seemed not only reasonable but apparently borne out by experience reflected in surgical literature.

Recently, however, with the publication of an extensive monograph by Cheatle and Cutler [1] and of articles by Bloodgood,[2] Campbell,[3] and others, there has developed sharp difference of opinion. Cheatle and Cutler recognize the two types of cystic change mentioned above, but regard the hyperplastic type as always secondary to the nonhyperplastic, believe the latter to be strongly precancerous and so regard both types as at least potentially dangerous. They state that, in their experience, at least 20 per cent of all breast cancers arise out of cystic change.

Bloodgood and Campbell, on the other hand, are equally convinced that neither form of cystic change possesses any special tendency toward malignant degeneration. This presents a dilemma to the clinical surgeon. He must continue to deal with cystic disease and if the process is dangerous, amputate breasts; if harmless, avoid mutilation.

Campbell has offered a reasonable explanation of the development of this divergent opinion. Those who believe that cystic changes are precancerous do so because of the frequent finding of "cancer" in association with this process. Those who hold the condition harmless arrive at this conclusion because they find in follow-up studies that patients suffering from even hyperplastic cystic disease do not develop metastasis and do not die of cancer.

Of the two lines of evidence, we are inclined to regard that obtained from a study of what actually happens to patients as the more reliable. There are several possibilities of error in the microscopic determination that cancer has begun in benign cystic disease. The process presents a variety of curious histological pictures, some of which simulate cancer very closely, even to the point of apparent invasion of a few cells, as at the bases of large papillomata. The diagnosis of malignancy in epithelium still confined within duct boundaries is notoriously difficult. But if women presenting these pictures do not suffer metastasis and death, then the lesions are not cancer, as far as patients are concerned. And if, in some, a lump is removed by local excision, other similar areas being left in the breast, and still cancer deaths do not occur, the conclusion is justified that the lesions are not even precancerous. We believe it has been demonstrated that there is certainly much less danger of cancer development, even in the hyperplastic type of cystic disease, than was formerly supposed.

One finds, however, isolated cases in the literature, substantiated by reasonably clear photographic evidence, in which true metastasizing cancers have arisen in association with lumps of definitely benign hyperplastic cystic disease. Although it is impossible to collect accurate statistics from the literature, it seems that this happens a little oftener with hyperplastic cystic disease than with non-hyperplastic, in spite of the much less common incidence of the first type. (Perhaps the relationship is no more specific than that, with much increased epithelium, there are more cells exposed to the "accident" of cancer development.)

If these observations are correct, one must conclude that hyperplastic cystic disease may very occasionally have cancer associated with it, but that this association is a much less common one than was formerly supposed—so much less common, in fact, as to justify a fairly conservative surgical attitude toward it.

The following working rules seem reasonable:

1. The simple cyst (nonhyperplastic—"blue-domed" cyst) is harmless. When it composes a clinical lump, it requires exploration only for con-

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[1] Cheatle and Cutler: Tumors of the Breast, Philadelphia, 1933.

[2] Bloodgood, J. C.: Borderline Breast Tumors, Ann. Surg., 93:235, 1931.

[3] Campbell, Orwood J.: Relationship Between Cystic Disease of the Breast and Carcinoma, Arch. Surg., 28: 1001, 1934.

firmation of diagnosis. Other smaller cysts may be left in the remaining breast without fear.

2. Papillomatous cysts and areas of papillary cystadenoma, when limited and presenting as clinical lumps, must be explored because they are lumps, but local excision is sufficient.

3. The diffuse process, involving one or both whole breasts, fortunately uncommon, presents the only real problem. If its benign character can be determined clinically (as Bloodgood believed) or by gross inspection of tissue, conservation of the breast appears to be safe and certainly desirable in younger women. In older women, past the age of likelihood of breast function and in the "cancer age," it is perhaps good surgery to remove all tissues involved.

4. Occasionally patients are seen in whom an advanced degree of hyperplastic cystic disease so changes the texture and gross appearance of breast tissue as to make it difficult or impossible to determine whether or not cancer is present. Since it is impossible to subject every area of a large breast mass to frozen section, one must occasionally do even a radical mastectomy without positive proof of the presence of cancer. In the hands of surgeons experienced in the gross pathology of breast tissue, the mistake of doing a radical operation in the absence of cancer or of failing to do one in its presence will be a very rare one.

* * *

TREATMENT

H. J. Ullmann, M. D. (1520 Chapala, Santa Barbara).—It is surprising how often physicians, faced with the care of a patient suffering from advanced cancer of the breast, will lose all interest or take a hopeless, pessimistic attitude toward the situation. These same physicians, faced with a severe myocarditis with its accompanying edema, shortness of breath, and perhaps ascites, will call upon all their experience and knowledge to see how much comfort they can bring to the sufferer. And yet, in neither, can they expect more than to obtain relief of suffering and a happier life during its short remaining term—to use a single word, palliation. A physician's duty is to relieve suffering, prolong life and, if possible, cure the disease. He is derelict in his duty if he neglects one because he cannot accomplish either of the others. It is not for these few that this is written, but for the larger number of true physicians who wish to accomplish everything possible for those patients who are their and their only responsibility.

First, a hopeful attitude, especially toward the patient. Why? Because mental suffering can be and often is greater than physical and because much can be done. Any patient is happier when something is being done for him even when he knows it is useless. Second, many things can be done that are both useful and beneficial, and these are the objects of this paper.

What I mean by "hopeless breast cancer" is only hopeless because there is no hope of the conventional five-year continual freedom from the disease, used as the criterion of cure in judging the relative value of one treatment as compared with another. The only true "hopeless" is the terminal, in whom death is only a few days or weeks away. The routine daily care of the patient and the relief of symptoms as they arrive are the most urgent and yet the most neglected phases of the problem. This is largely due to ignorance on the part of the physician. Most nurses are woefully untrained in the care of these patients and must look to the physician for both instruction and training. He must see that the nurse, as well as himself, maintains a cheerful, hopeful attitude as well as a sympathetic one. Sloughing ulcers should not simply be treated with petrolatum dressings and allowed to create a stench in the house or hospital, and I have seen such unintentional neglect even in a good hospital. These ulcers may be irrigated with warm Dobell's solution, one-half of one per cent chlorezene, peroxid, etc. At each visit the physician should remove such necrotic material as is ready to fall or may be cut away without entering living tissue. No more must be taken than can be without producing the slightest bleeding. Dressings should be gauze or lint that is not too coarse, and just enough petrolatum to prevent their adhering to the wound. This only if the wound must be covered. Exposure to air, if practicable, is better. In some instances, Dodd's wash or a thin calamin lotion is more comfortable for the patient than an ointment. If there is a dry dermatitis over the tumor instead of an ulcer, a protective ointment, such as zinc oxid, petrolatum (solid or liquid), or the above washes, may be used. The choice of dressings must be left to the judgment of the physician and the comfort of the patient.

The choice of drugs to relieve pain and discomfort is one that must be considered with care. It is easy to produce a tolerance requiring enormous doses by the injudicious use of morphin in the early stages. It is imperative that morphin be reserved until the last, and after all other methods and drugs have failed. A properly cared for wound will often render drugs unnecessary or effective in small amounts. It is important to judge between pure pain and discomfort. Aspirin will often relieve a large number of distressing discomforts that the patient may, unless carefully questioned, refer to as pain. It should always be tried before going to a stronger analgesic. The addition of acetphenetidin and, later, codein will be needed as the discomfort increases. It is a mistake to give analgesics for a wakeful night when a mild hypnotic will be effective. Amytal and sodium amytal are valuable. For more powerful effects, I have found a capsule containing aspirin—three grains, acetphenetidin—two grains and codein one-half grain, very useful except in the few cases where it causes the patient to perspire. The next step is the use of codein. This does not appear to produce a real tolerance, as does morphin, and I try to withhold morphin until such time as one grain of codein hypodermatically ceases to be effective. From this I proceed to morphin in not less than one-fourth grain hypodermatically, for I believe it is a great mistake where there is pain to give either codein or morphin in the smaller doses. They must be given more frequently and do not give the relief to which the sufferer is entitled. Codein in doses from one-half to one grain, and morphin in doses from one-fourth to one-half grain, will, unless tolerance is present, give greater relief for a smaller amount in the twenty-four hours than in doses of one-half to one-third of this given more often. I consider one-sixth grain of morphin useless, for if it gives relief the same relief could have been obtained by some other drug.

Fortunately, we have today other agents and methods to supplement or replace the ones just described. I refer to palliative surgery and radiation. Surgery has little to offer except the removal of a sloughing mass which, in a few instances, can afford great relief to both the patient and those who must care for her. Radiation in nearly all cases can offer not only great relief, but every now and then a supposed hopeless patient, especially in the aged, will have his tumor actually disappear under more or less continuous conservative radiation and pass the five-year period without recurrence—a so-called cure. Other radiologists and I have had patients under our care for from three to more than five years who, while still possessing tumors in their breasts, are perfectly free of any disability due to these tumors.

REPORT OF CASES

Case 1.—I have under my care a woman who, when she first came to me in July, 1930, was seventy-eight years of age. She had first noticed a tumor in her left breast three years before. There was no pain. At the time of seeing her, there was a four by five centimeter rock-like tumor two centimeters thick in the outer lower quadrant of the left breast, with one small gland in the axilla. She has had many courses of radiation, all conservative, and both radon and radium needle implants into the tumor and axillary gland, and now, nearly five years later, has a small hard nodule in the midline of the junction of the breast with the chest wall and a small hard axillary gland. The last roentgen irradiation was in March, 1935. It was given because of a slight enlargement of the axillary node. I again repeated my promise to her that, although I cannot free her of her tumor and that she must have treatment for the rest of her life, she will not die from it nor have any serious discomfort.

* * *

Case 2.—A woman of eighty-two, whom I first saw in November, 1932, had a four-centimeter tumor in the lower quadrant of the left breast, multiple smaller nodules in the upper quadrant and small clusters of axillary glands. The entire breast was swollen and tender, and the larger nodule, which was pushing up through the skin, was bluish with an erythematous apex and looked as though it were about to open and discharge. In October, 1933, at the last examination, she had a two-centimeter small, soft, flat, freely movable node in the breast with no palpable axillary nodule. In April, 1935, her physician told me that she was well and that the breast nodule could hardly be found.

* * *

Case 3.—In January, 1931, the third patient, who had passed ninety years, had a three-centimeter rock-like lump in the upper outer quadrant of the breast. This was attached to the skin and had the appearance of an old scar. There were palpable glands in the left axilla. I saw her last in February, 1935, eleven days after her ninety-fourth birthday. The growth was very slightly larger than when first seen, there was a two-centimeter clean ulcer in the center of a puckered mass, and the axillary nodes were enlarging. It is perfectly possible that this case would have grown as slowly without any treatment, but she was extremely worried about it and, as it shrunk immediately following each course of radiation, she at least was saved mental suffering. There is nothing more cruel than to tell a patient there is nothing to be done even if the physician himself knows that his efforts will produce no results.

The excruciating pain of bone metastases can be relieved for a greater or less time, and quite often permanently, by proper roentgen irradiation. In some instances, bone defects, as shown by roentgenograms, disappear or fill in with denser material. This procedure should never be neglected, as by its use relief may be obtained from the greatest suffering associated with breast cancer.

I may and probably shall be asked what technique or method of radiation should be used for such cases. The answer is radium in needles, radon in gold or platinum implants in a few, and the roentgen ray at 125 KVP to 225 KVP with filtration of from .25 millimeter to 2 millimeters of copper, depending on the case. Ports, size of dose, intervals between radiation, etc., is a matter of clinical judgment on the part of the radiologist and varies not only with the patient, but with the progress of the case. There can be no discussion of radiological technique in a paper such as this and there is no need of doing so, as such treatment can be given only by an experienced radiologist, and he is well aware of its possibilities and value.

Let me leave this message with all practitioners of medicine and surgery. No cancer of the breast, at any stage, is hopeless from the standpoint of relieving suffering and discomfort. Much can be done, and a physician is derelict in his duty if he does not avail himself of present knowledge and apply it in so far as he is able or the patient will permit.

* * *

CLINICAL PHASES AND TREATMENT

James F. Percy, M. D. (1030 South Alvarado Street, Los Angeles).—I know of nothing in the practice of medicine in which correct clinical diagnosis is more difficult than the determination of the nature of a lump in the breast of a man, woman, or child.

Our natural first inquiry today is, when one of these patients comes in to our office, is the tumor malignant, benign, or cystic? The latter may be a mixture of the former two. In this connection it is also well to keep in one's mind that curable palpable irregularities in the breast may be due to some form of hormonal or endocrine imbalance associated especially with the ovaries. I trust no reader of this article will ever be guilty of the often fatal advice sometimes given: "If it doesn't bother you, don't you bother it."

It is important not to confuse the endocrine physiologic cyclear congestion developing at the menstrual period, and in many women causing pain and enlargement of the breasts, to the chronic, non-painful, bilateral, lumpy, cystic breasts which Reclus described years ago.

I shall not describe the distinguishing aspects possible by transillumination of the breasts as an aid to the diagnosis of tumors therein.

We should remember, however, that mastitis (mazoplasia, Cheatle; mastoplasia, Whitehouse) carcinoma, fibro-adenoma, and cystic disease may exist simultaneously in the same breast. In addition, we may find tuberculosis, actinomycosis, Paget's disease, acute mastitis (even when not associated with lactation), fat necrosis and lipomas among our diagnostic problems.

Mass statistics on the frequency of benign or malignant growths of the breast are not helpful when we try to employ them to settle the nature of a lump in one of these organs of the new patient that we will probably see tomorrow. Within certain narrow limits, every search for the correct diagnosis as to the character of a breast tumor when first ventured, before a biopsy or its surgical removal, must, from the sort of a problem it usually is, be an enigmatical one. This remains so until its structure has been completely studied by a pathologist, and even then a negative microscopic report in an otherwise suspiciously malignant breast tumor is never conclusive as to its benignity. This is definitely so if the study and conclusions of the pathologist are based only on one or two slides from a rapidly frozen section.

If both breasts contain approximately an equal number of varying sized lumps or indefinite sensitive masses, the examiner can suspect a two-sided mastitis. It is also quite the rule in these bilateral lumpy breasts that the patient has recognized the trouble in but one. It should also be more generally known that cancer *in situ* gives a feeling of hardness or compactness to the experienced examining finger that is quite characteristic and rarely found in cystic disease of the breast, except it be thick-walled or fully distended. Likewise, statements about pain in one or both breasts by their possessor is important.

The more pain the less likelihood of the lumps being cancer. Reasonable handling of cancer anywhere in the body causes no response as expressed by wincing, unless it has become inflamed, while mastitis is always sensitive on manipulation.

It is surprising how many women who have lost a breast, or their ovaries or uterus, give a history of various phases of neurasthenia extending over a period of years. I sometimes wonder if the surgeon they first consulted had had a practical knowledge of some of the functional vagaries of the human nervous system, would his patient have been subjected to so much radical treatment? We should not forget that women are no exception to the possibility of their breast pain being due to an unstable nervous system, and their discomfort, therefore, a functional sensory problem rather than an organic one.

The doctor who believes, without adequate proof, the statements of any patient that he or she is suffering pain is skating on very thin diagnostic ice.

Every woman with a harassing breast that is not obviously diseased should be given a chance to clear up under medical treatment rather than as a routine make surgery the first method of choice.

If the abnormal mass is in the substance of one breast, and there is no similar lump in the opposite breast; and if it ranges in size from a ripe olive, or smaller, to that of a small orange, or larger, and is hard to the feel and not particularly sensitive, it is in all likelihood cancer.

If the patient has discovered the lump or lumps several months or even a year or two previously, and it has not appreciably grown, it is probably still in the benign class. It is very wise, however, for the reader to remember that the term "in all likelihood" employed above, and the additional one, "it is probably," are in no way diagnostic of anything, and, if depended upon in place of unimpeachable diagnostic evidence and methods as between mastitis and malignancy, the error may later cause great grief to the physician and to his patient, disaster.

No author so far as I know, except Jackson, has suggested coincident distant focal infections as etiologic factors in the persistence of what we are here generically calling chronic cystic mastitis.

The writer, ever since his attention was called to isolated focal areas as a fruitful source of this condition in the breast, has more than benefited a large percentage of patients by the following method:

First: Clean up the mouth, both from its dental and tonsil aspects and, as well, any other possible sources of infection outside of these two that may be found.

Second: Sagging or hanging breasts, unlike the gardens of Nebuchadnezzar, are never handsome or healthy. They should be maintained indefinitely, if necessary, in a position of anatomical normalcy, *i. e.*, straight back against the thorax by a well-fitting, but not tight, brassière.

Third: An important part of the treatment before the adjustment of the breasts in the brassière is the application of some form of alterative ointment which should be smeared over both breasts in a thin layer and covered with paraffin paper to hold it in place and to prevent soiling of the undergarments. The formula for the ointment for this purpose which has served me best for many years is the following:

℞
Pulv. phytolacca radix, dr. 3
(Sharpe & Dohme)
Lanolin
Ung't hydrarg. nitratis (U. S. P.) of each, dr. 4
(Citrine ointment)
Ung't petrolatum q. s. ad., oz. 3
M. Sig.:
Apply to the breasts every other day as directed.

Fourth: Two and one-half grains potassium iodid in a full glass of water three times a day.

How long should this treatment be continued in order to settle the diagnostic problem as between a mastitis and a malignancy? Two weeks. In this period of time the lumps due to a mastitis are distinctly smaller and less tender; in three to four weeks, if the treatment is continued, the breasts become essentially normal if the concurrent focal infections have been removed.

If many of the lumps disappear, but not all, leaving an isolated mass, it is either a thick-walled cyst containing fluid or a frank malignancy. Thick-walled cysts never entirely disappear under this treatment.

In this situation what should we do next? The answer: Make a liberal biopsy, *i. e.,* preferably the removal of the whole palpable mass under suspicion, and always with the actual cautery knife (not diathermy). The surface of the cavity remaining should then be infiltrated with heat from the ball-tipped cautery until its walls are like "horn or leather."

This insures the necessary heat penetration requisite to discourage a recurrence in the biopsied area should the laboratory pronounce it positive for cancer. To cut into a suspicious mass of tissue even with the cautery may result in a form of stimulation, should it be malignant, that may not be easily overcome by a radical removal later.

When should radical treatment for cancer following a positive laboratory report be instituted? *Immediately,* and by actual cautery knife excision and without pre- or postoperative radiotherapeutics. This advice also applies if the pathologist announces the specimen to be negative for cancer, but the condition for which the biopsy was done is extensive and clinically suspicious of carcinoma. It not infrequently happens that further research and study disclose cancer.

What shall we tell the patient about the necessity for a biopsy?

If the breasts clear under these preliminary therapeutic tests, or if this outcome follows the employment of the ovarian residue (Cheatle and Cutler) or Thelin (Whitehouse), the physician's statements to the patient as to the nature of her breast pathology can be encouragingly truthful. If, however, the masses do not clear, and if there remain one more or less definite firm tumor, the necessity for entire removal of the lump for purposes of study should be explained to the patient. If the biopsy, made with all precaution to prevent stimulation and dissemination of cancer cells proves positive, there are almost no exceptions in my experience to telling the patient that the laboratory reports her tumor cancer, and the urgency for the immediate radical removal of the breast.

If she then asks (as she most likely will), "Doctor, do you really think it is cancer?" he can and still should be enhearteningly loyal to scientific truth by not telling the victim she has no cancer, when she has, or calling it a tumor as a subterfuge for the real situation; because, not being the truth, such an answer is never completely satisfactory.

With the years, I have learned that a patient, when told that she probably has a fatal disease, rarely worries about dying longer than seventy-two hours. After that, the patient usually tires of the subject, dismisses it and becomes greatly interested and coöperative in attempting to find some method of escape from the "rendezvous with death." A hopeless prognosis usually drives these sufferers into the hands of medical frauds, including the religio-medical swindler, who can neither prevent nor moderate their suffering. No thoughtful or considerate physician will ever abandon these patients to such a fate when he has, to say the least, the wonderful resources of his own art in the way of medical palliation, and beyond this always the encouragement that comes from the hope of a possible cure.

Injection Treatment of Varicose Veins.—Colt and his collaborators found that the injection treatment of varicose veins with salicylate (40 per cent) saline (10 per cent) solution is safe and satisfactory in patients presenting a single varicosity, generally with a positive Trendelenburg sign, and a more extensive type of varicosity with a positive Trendelenburg sign and with a greater degree of deep reflux. Patients presenting a multiple spongework of small varicosities give poor results when treated in this manner. Although great amelioration takes place, a cure does not follow. It is as yet uncertain from the results published if more than amelioration can be obtained by operation, or by operation combined with injection, in this type of patient. In a small proportion of cases injection alone is not entirely successful, and ligation of the internal saphenous vein below its upper end is indicated as an adjuvant. No evidence sufficiently strong has yet been published to justify primary saphenous ligation in preference to primary injection with salicylate-saline solution. Almost all cases that have failed to react to other solutions can be successfully treated with salicylate-saline solution. The converse is not true, but sodium morrhuate appears to answer well in short lengths of vein when salicylate fails. Longer intervals than those commonly given between injections are evidently necessary if the accepted pathology of sclerosis is to be the guiding principle in treatment. Unna's paste bandage applied in the hydrostatic manner gives much better results than are obtained by the modern elastic-pressure applications.—*British Medical Journal.*

Traffic Accidents.—The Netherlands Central Bureau of Statistics has published for the first time a monograph giving detailed information on the causes of traffic accidents during 1932. All accidents on the public highways that caused substantial material damage and resulted in the death or injury of human beings are taken into consideration. The work reveals that in a total of 41,195 accidents the driver was responsible in 28,221 instances and the pedestrian was at fault in 2,975 cases. In 2,788 cases the bad condition of the road was the cause of the accident. In addition, there were 6,254 "diverse" causes. Collisions between bicycles or between a bicycle and other vehicle are most frequent, because of the large number of bicycles on the streets. To enumerate: There were 381 instances of a collision between a bicycle and a street car, 3,564 collisions between a bicycle and a truck, 7,336 with an automobile, 981 with a motorcycle, 2,928 with another bicycle, 145 with a pedestrian, 150 with a pushcart, and 559 with a horse-drawn vehicle.

Of collisions of an automobile with a street car there were 851 instances; with a truck, 3,215; with another automobile, 4,582; with a motorcycle, 1,067; with a bicycle, 7,336; with a pushcart, 556; with a horse-drawn vehicle, 835; and with a pedestrian, 1,441.

Of collisions of a truck with a street car there were 728 instances; with another truck, 1,617; with a motorcycle, 447; with a bicycle, 3,564; with a horse-drawn vehicle, 611; with a pushcart, 427; and with a pedestrian, 739. One should take account of the fact that 94 per cent of the vehicles were bicycles, 1.56 per cent were trucks, and 2.74 per cent were automobiles.

The source of information concerning the fate of persons seriously wounded is not reliable. Many communes have no infirmary. The wounded in that case are transported to the nearest city, where the consequences of the accident are often lost sight of.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section (Adv. pages 2, 4 and 6).

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ROBERT A. PEERS	President
EDWARD M. PALLETTE	President-Elect
FREDERICK C. WARNSHUIS	Secretary-Treasurer and Associate Editor for California

A NEW YEAR'S THOUGHT

The following is worth pondering over in these first days of a new year.

"All sciences are leading up to a better understanding of life and a consequent improvement of the physical, mental and moral powers of man. Medicine, preventive and curative, promises to do more and more for human welfare. If legislation and civil administration will keep up with science, if knowledge can be controlled by ethical standards and applied with temperance, if the organizations that we represent can be given support, encouragement and opportunity, there is no reason why the community of tomorrow may not be altogether free from most of the foes which in this and former generations have slain their tens of thousands."

And if the members of this Association will "capitalize on the opportunities which current pressures afford, building upon the foundations of sustained success already achieved, interpreting the dreams of the present for the dreamers of the future—thus we shall contribute to an ever richer understanding of the problems of human life, to the growing happiness of ourselves and those with whom we live and work, and shall see the results of our labors in a rising index of civilization."

In place of resolutions, often broken as soon as made, may the thought expressed serve as an inspiration during this year.

STATE AND COUNTY SOCIETY ACTIVITIES

COUNTY MEETINGS

President Peers and the State Secretary attended meetings of the following county units during December: San Joaquin, December 5; Merced, December 13; Stanislaus, December 13; Santa Clara, December 18; Kern, December 21; and Kings and Tulare, December 22 .

During January and February, engagements will be kept to meet with most all of the southern county societies.

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ANNUAL CONFERENCE OF COUNTY SECRETARIES

On January 18, in the Sir Francis Drake Hotel in San Francisco, the annual conference of county secretaries with the officers and Council will be held. The following program has been arranged:

9:30 a. m.

Opening Statement—President Peers.
Value of Membership Affiliation—President-Elect Pallette.
Functions of the Council—Chairman T. Henshaw Kelly.
California and Western Medicine—Editor George H. Kress.
Legislation—Junius B. Harris.
Graduate Medicine—C. G. Toland.
Public Relations—C. A. Dukes.
Legal Services—Hartley F. Peart.
Luncheon.

1:30 p. m.

Round table: Questions and answers.
Membership Campaigns.
Secretary Reports.
Legislation.
Health Institutes.
County Programs.
Note: Secretaries are requested to send in questions.
Adjournment 4:30 p. m.

The Secretary is the most important county officer. The fundamental purpose of this conference is to enable each secretary to gain an intimate insight of the policies and functions of the State Association. In turn each secretary can transmit this knowledge to the members in his county.

The Council expects every county secretary to attend and also invites the presidents of county units to be present and join in the discussions. If you have any particular question you wish discussed, please send your question to the State Secretary.

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1936 ANNUAL MEETING

The management of the Del Coronado Hotel reports that nearly all of their rooms have been reserved for our annual meeting the week of May 25. This indicates that the 1936 session will be the largest in the history of the Association. All room reservations must be made through the hotel management. Association officers do not hold any "block" reservations. Splendid hotel facilities remain in San Diego, twenty minutes from Coronado. Accommodations can be secured at these hotels: U. S. Grant Hotel, El Cortez Hotel, Pickwick Hotel, Hotel San Diego, Sandford Hotel, New Plaza Hotel, and Hotel St. James.

Section officers will meet in Los Angeles, January 12, to complete the final details of the scientific program. The program will be announced in the April journal.

Again it is urged that members write for their hotel reservations. This annual meeting will be well worth attending.

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COUNCIL CONFERENCES

The Council is always seeking to conform to the wishes of the members and to the instructions of the House of Delegates. The Council invites and welcomes constructive recommendations. This has been evidenced in a large degree during the past year. During Council meetings conferences have been had with: Committee of Five; Legislative Committee; delegates from the Alameda, San Diego, and Sacramento county societies; representatives from the Dental Association; San Francisco Problems Group; individual Association members; Department of Health; Board of Medical Examiners; Attorney-General's office; members of the Legislature; and the State Bar.

The Council will always welcome a conference for the purpose of considering matters of vital interest to the Association. The same attitude is evidenced by all the officers and committees of the Association.

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EXPRESSIONS OF OPINIONS

Postal Card Votes.—As imparted in the last issue, the Council directed that a postal-card expression and vote be obtained from members on a qualifying certificate (basic science) law and upon the question of health insurance. On November 19 a postal card (5,300 of them) was sent to every member to voice his personal expression in regard to a qualifying certificate law. The replies received were 2,049 for and 263 against such legislation.

On November 25 some 11,000 postal cards were sent to licensed physicians and surgeons in California requesting expressions by answering four questions on health insurance. Returns to date of January 2 are:

Against compulsory health insurance	2636
For compulsory health insurance	845
For voluntary health insurance	1615
Against any type of health insurance	1129

A more detailed study and tabulation of answers received will be made, and will be printed in the next issue. An effort will be made to tabulate the return by counties.

These personal expressions give a fairly representative picture of the profession's attitude toward these two questions, in addition to furnishing an insight to the personal opinions of medical men. See further report and comment in the February issue.

* * *

APPRECIATION OF CALIFORNIA'S PROFESSION

An eastern surgeon, a university regent, and a man who has visited many clinics and medical meetings, not only in this country but all over the world, wrote in a personal communication:

"After leaving San Francisco, Mrs. S. and I went to Southern California, gaining impressions of the country in general and medical conditions in particular. Incidentally, we met a great many old friends and had a thoroughly enjoyable and profitable time. I came home with renewed and fresh impressions of the excellence of the medical service performed by the good men of the profession out there. Certainly your standards are as high as any in the country and far better than in most parts of the country, and I think all of you there can be well satisfied with what you are doing. There is a certain newness and freshness, a tendency to break away from restricting traditions, and an enterprising spirit which is very apparent to one who visits California after a period of years."

If eastern men would do as this surgeon did, come and spend two or three weeks in California, see and mingle with our members and gain first-hand information—well, eyes would see the light and there would be a new and better understanding.

EXECUTIVE COMMITTEE*

Minutes of the Two Hundred and Twenty-Third Meeting of the Executive Committee of the California Medical Association

Held in the offices of the Association, Room 2004, Four Fifty Sutter Building, San Francisco, Sunday, December 1, 1935, at 9:45 a. m.

1. **Call to Order.**—The meeting was called to order by the chairman, Karl L. Schaupp, with the following members present: President Robert A. Peers, President-Elect Edward M. Pallette, Speaker W. W. Roblee, Chairman of Public Relations Charles A. Dukes, chairman of the Council T. Henshaw Kelly, chairman of the Auditing Committee Karl L. Schaupp, Editor George H. Kress, Secretary F. C. Warnshuis, and General Counsel Hartley F. Peart. Dr. Morton R. Gibbons and Emery Seeburt were also present.

2. **Board of Medical Examiners.** — On motion of President-Elect Pallette, seconded by Speaker Roblee, the following resolution was unanimously adopted:

WHEREAS, Since the year 1913, Dr. Charles B. Pinkham of San Mateo County, and a member of the San Francisco County Medical Society, acting as a member of the Board of Medical Examiners of the State of California and also secretary of that board, has for the last twenty-two years rendered most efficient service by protecting the citizens of the State of California from incompetent and illegal practitioners; and

WHEREAS, The term of office of Dr. C. B. Pinkham as a member of the Board will expire on January 15, 1936; now, therefore, be it

Resolved, That the California Medical Association, an organization of five thousand licensed doctors of medicine, through its Executive Committee, respectfully petition His Excellency, Governor Frank F. Merriam, asking him, at the proper time to reappoint Dr. Charles B. Pinkham as a member of the Board of Medical Examiners, so that his able work, which has received national and statewide recognition, be continued, to the benefit of the public health interests of California; and be it further

Resolved, That Dr. Robert A. Peers of Placer County, president of the California Medical Association, be authorized to present this resolution to His Excellency, Governor Frank F. Merriam.

The secretary was instructed to contact the county medical societies and request them to adopt similar resolutions and forward them to the Governor.

3. **San Diego Fair.**—The secretary reported that the San Diego Fair management had offered 20,000 square feet for a scientific medical exhibit under the auspices and control of the San Diego County Medical Society and the California Medical Association.

It was moved by Editor Kress, seconded by Speaker Roblee, that the Executive Committee endorse the project of a scientific exhibit at the San Diego Fair, as outlined by Secretary Warnshuis, and that President Peers be authorized to appoint a committee of five to represent the Association; and that there be no financial responsibility connected with the project on the part of the California Medical Association. Carried.

President Peers appointed as members of the Committee on the Exhibit for the San Diego Fair, Clarence G. Toland (chairman), E. M. Pallette, John C. Ruddock, Fred E. Clark, W. W. Roblee, C. O. Tanner; Robert A. Peers and F. C. Warnshuis, ex officio.

4. **Secretaries' Conference.**—It was moved by President Peers, seconded by President-Elect Pallette, that the secretary be instructed to write to each councilor urging him to encourage the attendance of county society secretaries or representatives from their individual districts at the County Secretaries' Conference on January 18, 1936. Carried.

5. **Clinical Laboratory Technologists and Technicians.**—The secretary presented a communication from the State Department of Public Health relating to the Attorney-General's opinion on an act relating to the conduct of clinical laboratory technologists and clinical laboratory technicians.

It was moved by Editor Kress, seconded by President Peers, that General Counsel Peart be requested to send a copy of the bill prepared on this subject to the secretary for transmittal to the Department of Public Relations of the California Medical Association and that the Department of Public Relations be requested to make a study of same, having in mind the protection of members of the Association specializing in clinical laboratory work; and further, that the Department of Public Relations, after consultation with Counselor Peart, send a copy of the revised draft to the California State Department of Health for the consideration of that body. Carried.

6. **Malpractice Insurance.** — Correspondence from the Los Angeles County Medical Association regarding group malpractice insurance was presented by the secretary, and discussed by the committee.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Editor Kress, that the matter of malpractice insurance be referred to the Standing Committee on Medical Defense, of which Doctor Reinle is chairman, for study and report at the January 19 meeting of the Council; and that it be suggested to Doctor Reinle that Dr. Lowell Goin of Los Angeles be invited to confer with the Special Committee prior to the submission of the report. Carried.

7. **American Medical Association.**—The secretary read a letter addressed to the editor of *The Journal of the American Medical Association* regarding State Society news items, to which no reply had been received.

It was moved by President-Elect Pallette, seconded by Speaker Roblee, that the chairman of the Executive Committee be authorized to address a letter to the Board of Trustees of the American Medical Association calling their attention to the fact that various news items have been submitted to the editor of the *Journal*, which have not been published, and that other state secretaries have inquired and requested information as to activities in California. Carried.

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* The minutes of the two hundred and twenty-second meeting of the Executive Committee of the California Medical Association were printed in the August, 1935, issue of CALIFORNIA AND WESTERN MEDICINE, page 164.

8. **Committee of Five.**—The secretary reported on the copyrighting of the report of the Committee of Five, and it was the sense of the committee that no action be taken at this time.

It was moved by Speaker Roblee, seconded by President-elect Pallette, that the secretary be instructed to request that all material collected by the Advisory Committee, the expense of which was defrayed with the funds advanced by the California Medical Association, be sent to the offices of the Association and that the secretary take such necessary steps as will secure possession of these records, graphs, and etchings. Carried.

9. **Referendums.**—The secretary presented a report on the votes on the Basic Science Act and health insurance problem, as of Saturday, November 30.

10. **Basic Science or Qualifying Certificate Act.**—Dr. Emery Seeburt of the San Francisco County Medical Problems Group addressed the Committee on the Qualifying Certificate Act, stating that it was the opinion of many groups and individuals in San Francisco that the Act should be sponsored by some organization other than the California Medical Association.

Chairman of Special Committee Kress reported that a meeting of the committee would be held this afternoon to prepare a tentative draft which will be presented to the secretary of the Association so that copies may be made and sent to all members of the Council and that the secretary would call a meeting of the committee for Saturday, December 14, at which time representatives of the Commonwealth Club, the Medical Problems Group, the Public Health League, the medical schools, and other interested bodies would be present; and that copies of the tentative draft will be presented and the subject opened for discussion, so that report thereon may be made at the meeting of the Council on January 19, 1936.

It was moved by Chairman of Public Relations Committee Dukes, seconded by President-Elect Pallette, that the report of the chairman be accepted and that a meeting of the Qualifying Certificate Act be held at the Sir Francis Drake Hotel on Saturday, December 14, 1936, at 9:30 a. m. Carried.

11. **Legal Department.**—The general counsel reported on the present status of the case of *Goodall* v. *Brite; Pacific Employers'* v. *Insurance Commissioner,* and *Francis* v. *Nelson.*

12. **Budget.**—The secretary presented the budget for the year 1936-1937, as submitted by the Auditing Committee, for approval by the Executive Committee.

It was moved by Chairman of Public Relations Committee Dukes, seconded by President Peers, that the budget be tentatively approved by the Executive Committee and copies be sent to each member of the Council for consideration prior to consideration by the Council at its January meeting. Carried.

13. **Taxes.**—It was moved by Chairman of Public Relations Dukes, seconded by President Peers, that we call to the attention of the American Medical Association its inactivity in protecting the profession against imposition of taxes. Carried.

14. **Adjournment.** — There being no further business the meeting adjourned at 12:30 p. m.

KARL L. SCHAUPP, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

COMPONENT COUNTY MEDICAL SOCIETIES

FRESNO COUNTY

The Fresno County Medical Society convened for its annual meeting on Tuesday evening, December 3, at the University Sequoia Club.

The meeting is especially worthy of comment, inasmuch as it not only marked the annual session of the Society with the election of officers, but it also served as the initial gathering for the proposed Woman's Auxiliary. Members and their wives attended in large numbers. Dinner was served to the mixed group, following which Mrs. William H. Sargent, state organizer of the Woman's Auxiliary, addressed the meeting, outlining the need and importance of the Auxiliary. Her remarks were particularly inspiring and heartily received. Following the dinner the women adjourned to attend their own organization meeting, the details of which appear elsewhere.

The regular order of business followed, with the reading of the minutes, reports of committees, and the announcement of three new applicants to the Society, namely, Drs. C. P. Doane, E. R. Cole, and M. M. Goldstein.

Election of officers followed, which resulted in the unanimous selection of the recommendation of the Nominating Committee, namely, Kenneth Staniford, president; J. M. Frawley, first vice-president; R. W. Dahlgren, second vice-president; Henry A. Randel, secretary-treasurer. Delegates: G. W. Walker, H. A. Randel, Neil Dau. Alternates: R. W. Dahlgren, K. Luechauer, E. R. Scarboro.

Dr. Walter Wiese, retiring president, addressed the assembly with a message of thanks to the entire membership, committees, and officers for their coöperation during the past year. Evidence of the membership's appreciation of Doctor Wiese for his untiring efforts was expressed by an enthusiastic applause.

The scientific program was devoted to a symposium on *Short-Wave Diathermy* delivered by Dr. John Severy Hibben of Pasadena and Doctor Breitweiser of the California Institute of Technology. The uses and abuses of this type of therapy were thoroughly discussed, as were the underlying physical principles of short wave. The program was thoroughly enjoyed by all those present. Demonstration of short-wave diathermy was made possible by the display of a machine of an approved make.

HENRY A. RANDEL, *Secretary.*

MONTEREY COUNTY

The regular meeting of the Monterey County Medical Society was held at the Forest Hill Hotel in Pacific Grove on Thursday evening, November 7. Dinner was served at 7 p. m., with twenty members present, after which President Davlin presided over the meeting which followed.

Election of officers for the ensuing year was held, with the following results: John Merrill of Monterey, president; Wiley Reeves of Salinas, vice-president; E. F. Kehr of Carmel, secretary-treasurer; Mast Wolfson of Monterey, delegate.

Councilor Alfred Phillips of Santa Cruz was present and gave a report on the special meeting of the Council and discussed the two proposed referendums. The clinical part of the meeting was presided over by Dr. Spencer Hoyt of Monterey, and was chiefly a symposium on the annual congress of the American College of Surgeons recently held in San Francisco, presented by Doctors Hoyt, Knox, Wolfson, and Lawler. Doctors Hoyt and Knox both illustrated their talk with lantern slides, Doctor Hoyt discussing chiefly *Diseases of the Genito-Urinary Tract* and Doctor Knox, *Deep X-Ray Therapy.* Doctor Wolfson took up several interesting medical subjects and Doctor Lawler reviewed the *Wax Collapse Treatment of Pulmonary Tuberculosis.* Doctor Mildick of Honolulu, a guest of Doctor Wolfson, gave an interesting talk on *Goiter in the Islands* and Doctor McPharlin gave a review of the *Stanford Rectal Clinic* of Doctor Scarborough, held last month.

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The regular meeting of the Monterey County Medical Society was held Thursday evening, December 4, at San Lucia Inn, Salinas.

After the dinner President Davlin presided over a short business meeting, at which time Paul A. Lum of Carmel was voted in as a member, transferring from Merced County. Doctor Davlin then introduced the speakers of the evening, Ben H. Read, executive secretary of the Public Health League of California, Dr. Alson Kilgore and Dr. Glen Cushman of San Francisco. In a very interesting way they reviewed the work of the League during the past year and outlined somewhat the outlook for the coming year. The success of the meeting was well shown by the number that subscribed to the League and by the interest in the discussion which followed the talks.

William H. Lawler, *Secretary.*

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ORANGE COUNTY

The regular meeting of the Orange County Medical Association was held in the chapel of the Orange County Hospital, December 3, at 8 p. m.

The election of officers was held, and as only one man was named for each office the secretary was instructed to cast a unanimous ballot in each case. The new officers are as follows: John Ball, president; W. S. Wehrly, vice-president; Glenn Curtis, secretary-treasurer; C. D. Ball, librarian; and L. Cameron, editor of the bulletin.

Dr. Calvert L. Emmons, the councilor for this district, spoke on *Compulsory Health Insurance and the Basic Science Law.*

Mr. Speed, manager of the Medical Bureau, gave an interesting report for this organization.

The meeting was then thrown open for a general discussion of any subject brought up for the good of the order.

Waldo S. Wehrly, *Secretary.*

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SAN BERNARDINO COUNTY

The San Bernardino County Medical Society met on December 3, at the San Bernardino County Charity Hospital at 8 p. m. The meeting was called to order by the president.

There being no business to come before the Society the program of the evening was given as follows:

Case Report—*A Case of Purpura Hemorrhagica,* H. G. Gentry.

Symposium on Dermatology—*Unusual Cutaneous Manifestations of Syphilis,* Paul D. Foster; *Diagnosis and Treatment of Malignant Diseases of the Skin,* Nelson Paul Anderson; *Hypersensitive Dermatoses,* Samuel Ayres, Jr.

Officers for the coming year are: D. C. Mock, president; D. B. Williams, first vice-president; Gordon Helstrom, second vice-president; A. E. Varden, secretary-treasurer. Board of directors: K. L. Dole, R. C. Nichols, H. M. Walton, Walter Pritchard, and C. L. Emmons. Delegates: Walter Pritchard, H. M. Walton, and H. G. Gentry. Alternates: Carl M. Hadley, P. M. Lawler, and A. L. Weber.

A. E. Varden, *Secretary.*

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SAN FRANCISCO COUNTY

At its regular meeting of December 9, the board of directors of the San Francisco County Medical Society endorsed the reappointment of Dr. Charles B. Pinkham to the secretaryship of the State Board of Medical Examiners.

The new officers and directors of the San Francisco County Medical Society, elected December 10, are as follows: Philip K. Gilman, president; Ethel D. Owen, first vice-president; H. Glenn Bell, second vice-president; Stanley H. Mentzer, secretary-treasurer; Frederick L. Reichert, librarian.

Directors for 1936-1938 are: Elbridge J. Best, Donald A. Carson, L. R. Chandler, G. D. Delprat, J. C. Geiger, Mary Jones-Mentzer, and Robert S. Stone.

Mary Jones Mentzer, *Secretary.*

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SAN JOAQUIN COUNTY

The annual meeting of the San Joaquin County Medical Society was held at the new Basque Hotel, Stockton, December 5, Vice-President T. C. O'Connor presiding. The meeting was called to order at 7 p. m.

The first order of business was the reading of greetings from President C. A. Broaddus. The following resolution was presented by Dr. Dewey Powell, seconded by Dr. A. L. Van Meter, and carried:

"The members of the San Joaquin County Medical Society are deeply appreciative of the services rendered by their outgoing president, Dr. C. A. Broaddus. He has given generously of his time, his thought and his energy, and largely because of his personal leadership the Society has enjoyed a most successful year. The interest of the members, the excellence of the programs, and the conducting of a postgraduate course, attended by over one-half of the Society members, are all ample evidence that Doctor Broaddus has had a most outstanding year.

"The members of the Society regret that his illness of the past month has kept him from sharing in our annual meeting, and hearing personally the many deserved compliments that have been paid him. So we take this next best method of conveying by this resolution our appreciation of his untiring services in behalf of the Society, our sincere regret that his illness has prevented his presence tonight, and our hope that he will soon regain his health and be able to resume his many useful activities."

Dr. Neill Johnson reported on the activities of the Membership Committee. Dr. Dewey Powell, as chairman of the Public Relations Committee, presented the following resolution and moved that it be accepted. This was seconded by Doctor McGurk. The motion was carried.

Whereas, Dr. Nathan Barbour is conducting a heart clinic exclusively for the indigent sick abiding by the regulations set down in "A Standard of Clinics Organized for the Needy and Indigent," as published by the California Medical Association in January, 1932; and

Whereas, Doctor Barbour desires to offer one day each month to the personnel of the clinic and any interested member of this Society the postgraduate council of a teaching specialist; and

Whereas, It seems only fair and reasonable that such teaching specialist be paid a sum sufficient to cover his expenses and not to exceed $25; and

Whereas, Your Committee on Public Relations has investigated very carefully to determine whether this proposal violates the resolution of the council of the California Medical Association passed September 6, 1935; now, therefore, be it

Resolved, That the San Joaquin County Medical Society approve of the method of conducting a heart clinic for the indigent sick, including the securing of a teaching specialist one day each month; and be it further

Resolved, That this approval remain in force only as long as the clinic is conducted solely for the indigent sick, as now planned by Doctor Barbour.

Dr. Dewey Powell spoke about the immunization campaign of Doctor Sippy, and requested that the physicians as a whole coöperate with it. He also touched on the matter of the questionnaires which were recently submitted to the membership and requested that the membership respond. Doctor Sippy then spoke briefly on the immunization campaign that he was contemplating and reiterated Doctor Powell's request that the membership of the Society coöperate with the Health Center.

The transfer of Dr. O. E. Kuhn was acted on favorably by the Society. The application of Dr. John Rosasco for admission to the medical society was presented and read. This was ordered referred to the Admissions Committee.

Dr. Dewey Powell moved that the secretary be instructed to cast the ballot for the election of officers for the year of 1936. This was seconded by Doctor Dameron, and the motion was carried.

The question of the disposition of the old minutes of the San Joaquin County Medical Society was then taken up and, at the request of President Peers, Dr. Dewey Powell moved that all of the minutes, except for the last five years, be sent to the California Medical Association in San Francisco for storage and their files. This was seconded by Doctors Gallegos and Dameron, and the motion carried.

The annual report of the secretary on the activities of the medical society and the financial standing was then read and ordered filed by the president.

At the request of Doctor Schoff of Sacramento the following motion was presented by Dr. A. L. Van Meter:

Resolved, That the San Joaquin County Medical Society go on record and write Governor Merriam to that effect that they request the reappointment of Dr. Charles B. Pinkham to the Board of Medical Examiners on the expiration of his term of office January 15, 1936.

This was seconded by Doctor Sheldon, and the motion carried.

Dr. Axcel E. Anderson, councilor for the fourth district, spoke briefly on *State Medicine* and the activities of

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the various councilors of the California Medical Association and the activities of the Farm Bureau at their recent meeting in Santa Cruz.

Senator Dan Williams of Tuolumne County spoke briefly on the *Health Insurance Outlook for the State* and on the past activities of the Senate Interim on Social Insurance.

Doctors June B. Harris and Frederick F. Gundrum of Sacramento both spoke briefly on the various phases of the *Administration of the California Medical Association.*

President Peers' topic was *The Organization and Working of the California Medical Association.* This was a very entertaining and informative talk. Dr. Frederick Warnshuis, secretary of the California Medical Association, then gave the Society considerable information as to the *Internal Set-Up of the California Medical Association* and its responsibility to organized medicine. The topics presented by speakers of the evening led to lively discussion by Doctors Dewey Powell, Doughty, O'Donnell, Warnshuis, Dameron, Van Meter, and Peers.

G. H. ROHRBACHER, *Secretary.*

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SAN LUIS OBISPO COUNTY

The October meeting of the San Luis Obispo County Medical Society was held on October 19 at Mulholland's Grill. Twenty-six doctors and six visitors (lay) were present. Dr. Junius B. Harris and Mr. Ben Read were the speakers of the evening, they discussing legislative procedures and problems which were considered by the last California Legislature and which will undoubtedly be considered by succeeding legislatures. They stated that it was very necessary that all members of the medical profession and allied and interested organizations would have to be on their toes and be ready to act, respectively, when those in constant contact with the legislators demanded it. Mr. Read encouraged everyone who had been members of the Public Health League in the past to pay their dues for next year, and also to attempt to get new members for the League. The local officers of the Public Health League were reëlected for next year.

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The November meeting of the San Luis Obispo County Medical Society was held on November 16 at Mulholland's Grill. Sixteen members of the Society were present. The address of the evening was delivered by Dr. Morton Gibbons, he discussing some of the problems of industrial practice in California.

The membership application of Dr. Vernon L. Evans, a transfer from Los Angeles County, was submitted; also that of Dr. Justin A. Frank of Pismo, he having been elected to the Society in August.

F. W. YOCOM, *Secretary.*

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SOLANO COUNTY

A regular meeting of the Solano County Medical Society was held Tuesday evening, December 10. At this meeting the new officers took up the work of the Society, Dr. Arvil Chappell succeeding Dr. Ambrose Ryan as president, and Dr. John W. Green succeeding Doctor Chappell as secretary-treasurer.

After routine business was transacted the Society heard a very interesting report of the work of the Public Health League, given by Mr. Ben Read. Doctor McGavack of San Francisco also spoke on behalf of the Public Health League, stressing the need of new members for the League. The president of the Solano County Medical Society appointed a committee of Society members to work with the Public Health League in Solano County.

JOHN W. GREEN, *Secretary.*

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SONOMA COUNTY

At the regular annual meeting of the Sonoma County Medical Society, held on December 12, at which time, in addition to transacting routine business, reports of committees and officers for the year 1935 were received. Reports showed a membership of fifty-four members, a balance of $75.52 in the bank, and a very successful year's work for the Society.

The following officers were unanimously elected to serve the Society for the coming year: Paul T. Quarry of Santa Rosa, president; C. B. Andrews of Sonoma, vice-president; C. M. Carlson of Santa Rosa, secretary; L. W. Hines of Santa Rosa, treasurer. Dr. Chester Marsh of Sebastopol was elected to succeed himself on the board of censors for a three-year term, beginning January 1, 1936. A very interesting talk on hospitalization insurance was given by Mr. W. M. Bowman of Sacramento. Committees will be appointed by the incoming president.

W. C. SHIPLEY, *Secretary.*

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STANISLAUS COUNTY

The regular monthly meeting of the Stanislaus County Medical Society was held at the Hotel Hughson, Modesto, on November 8 at 7:30 p. m. There were twelve members present.

Discussion on the matter of a postgraduate course, previously submitted for consideration, was postponed until the next meeting.

Election of officers was conducted, with the following men elected unanimously: Hans Hartman, president; J. K. Morris, vice-president; E. F. Hagedorn, secretary; D. L. Robertson, delegate.

The election of a censor was postponed until the next meeting to permit investigation of the provisions of the by-laws, with reference to this office.

The members were entertained by viewing a series of interesting and instructive films depicting the *Technique of Thoracoplasty.* These pictures were presented through the courtesy of Eli Lilly & Co.

E. F. HAGEDORN, *Secretary.*

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TULARE COUNTY

The October meeting of the Tulare County Medical Society was held at Motley's Café, in Visalia, on October 20.

The following members and guests were in attendance: Doctors E. R. Zumwalt, McClure, Melvin, Annie Bond, P. D. Miller, Weiss, Cronemiller, Rosson, Ginsberg, Beck, Barber, Watke, Preston, Austin Miller, Guido, Fillmore, Dr. Hellbaum of Dinuba and Dr. Carl D. Benninghoven of Oakland.

Various communications were read. Dr. E. R. Zumwalt advised us of the availability of a trained physiotherapist for our residual poliomyelitis cases. He also stated that there were available limited amounts of Brodie vaccine.

Dr. J. Tracy Melvin gave an interesting informal report of his visit in South America, with particular reference to the hospital facilities found.

X-ray and radium therapy in relationship to surgery and the treatment of malignancy was the topic of the evening's paper, presented by Dr. Carl D. Benninghoven, radiologist of Oakland. Lantern slides were used to illustrate this interesting talk. KARL F. WEISS, *Secrtary.*

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VENTURA COUNTY

The November meeting of the Ventura County Medical Society was held on Tuesday the 12th at the Ventura County Country Club at Saticoy.

There were twenty members and two guests present. The guests were: Doctors Phil Shumaker of Los Angeles and Henry J. Ullmann of Santa Barbara.

Following the dinner, Doctor Ullmann addressed the Society in regard to the Qualifying Certificate Act and Assembly Bill 246.

Dr. Harry E. Barker was unanimously elected to membership in the Society.

A discussion was held on the advisability of formulating a plan for hospital insurance, but since there is no apparent demand for such insurance in this county at the present time, no action was taken.

Communication in regard to the postgraduate courses was read. It was suggested that the secretary get in touch with the Santa Barbara and San Luis Obispo Societies and attempt to arrange for a joint meeting with them.

Doctor Strong then introduced Dr. Phil Shumaker, who delivered a paper on *Bronchoscopy and Its Relation to the General Practitioner*. This was followed by slides and a display of some of the various objects which he had removed.

* * *

The Ventura County Medical Society held its annual banquet and election of officers at the Saticoy Country Club on Tuesday, December 10.

Following the dinner the meeting was called to order by President Strong.

Communication in regard to Dr. Charles B. Pinkham was read. Doctor Osborn offered a resolution urging his reappointment by Governor Merriam. The resolution was seconded by Doctor Stoll, and unanimously carried.

The following officers, having no opposition, were unanimously elected for the coming year: Fred A. Shore of Ventura, president; F. R. Hendricks of Ventura, vice-president; A. A. Morrison of Santa Paula, secretary-treasurer. Alternate delegate, A. A. Morrison.

Dr. G. C. Coffey's term as delegate does not expire until next year at this time.

Discussion was held in regard to establishing a minimum fee schedule for the county. It was decided to collect such schedules as are available and attempt to formulate a satisfactory plan at a later meeting.

A. A. Morrison, *Secretary*.

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YOLO-COLUSA-GLENN COUNTIES

The Yolo-Colusa-Glenn County Medical Society met in regular session in the Hotel Riverside at Colusa on December 3.

During the dinner Dr. Charles E. Schoff talked on matters pertaining to this councilor district, stressing the importance of keeping alert to political moves affecting public health and the practice of medicine in general.

The minutes of the previous meeting were read and corrected to state that Dr. Ney Salter of Williams was a member present at the previous meeting instead of a guest.

The board of censors voted favorably on admitting Dr. H. G. Potter to membership and receiving Dr. Joseph Tillotson by transfer from Sacramento County.

The following officers were elected: T. E. Cooper of Davis, president; Charles Roller of Colusa, vice-president; Ray E. Nichols of Woodland, secretary-treasurer. Delegate to state convention for two years, C. A. Poage of Colusa. Alternate delegate, Thomas Brown of Orland.

The secretary was instructed to send a letter to Governor Frank F. Merriam asking for retention of Dr. Charles B. Pinkham on the Board of Medical Examiners.

The following resolution was adopted in regard to the Superior California Hospital Association.

Whereas, the Superior California Hospital Association is a nonprofit organization; and

Whereas, Its sole purpose is to relieve the burdensome and usually the sudden large expense of hospitalization; and

Whereas, It had already been recommended and approved by the Sacramento County Medical Society and other northern California county medical societies; now be it

Resolved, That the Yolo-Colusa-Glenn County Medical Society endorse and approve the Superior California Hospital Association in its efforts to solve the problem of hospital cost and that such endorsement and approval be spread upon the minutes.

Dr. H. C. Bush of Alameda gave an interesting and practical talk on *Diagnosis and Treatment of Both Juvenile and Adult Tuberculosis.*

Ben Read gave a short talk on the *Political Activities of the Public Health League.*

A discussion of postgraduate courses was held, and because only nine members of the Society were present the secretary was instructed to write to all members and nonmembers, describing the course and to obtain a reaction from them so that plans could be made if sufficient interest were shown.

Dr. J. H. Woolsey was appointed as a committee of one to plan for the course if it is desired.

CHANGES IN MEMBERSHIP

New Members (10)

Kern County.—Chester I. Mead.

Los Angeles County.—Walter F. Kittle, John F. Plane, J. M. de los Reyes.

Riverside County.—Edward Keith Reekie.

San Francisco.—William Harrison, Robert C. McNaught, Robert P. Quirmbach, Frances A. Torrey.

Stanislaus County.—Ludwig H. Wolfsen.

Transferred (3)

Homer R. Evans, from San Bernardino County to Kern County.

Harrison W. Jones, from Stanislaus County to Kern County.

E. W. Henderson, from San Francisco County to Alameda County.

Resigned (1)

W. D. Martin, from Los Angeles County.

In Memoriam

Adler, Herman Morris. Died at Berkeley, December 6, 1935, age 59. Graduate of Columbia University College of Physicians and Surgeons, New York, 1901. Licensed in California in 1930. Doctor Adler was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

Burbank, William Winston. Died at Long Beach, November 29, 1935, age 29. Graduate of Stanford University School of Medicine, San Francisco, 1931, and licensed in California the same year. Doctor Burbank was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✣

Dunlap, Florence Mary. Died at Los Angeles, November 13, 1935, age 47. Graduate of the University of Colorado School of Medicine, Denver, 1927. Licensed in California in 1931. Doctor Dunlap was a member of the Imperial County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✣

Johnson, Carl Arthur. Died at Napa, November 20, 1935, age 47. Graduate of the University of Illinois College of Medicine, Chicago, 1914. Licensed in California in 1923. Doctor Johnson was a member of the Napa County Medical Society, the California Medical Association, and the American Medical Association.

✣

Smith, Rea Everett. Died November 29, 1935, age 59. Graduate of the University of Pennsylvania School of Medicine, Philadelphia, 1902. Licensed in California in 1902. Doctor Smith was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✣

Wells, William Burdick. Died at Riverside, November 1, 1935, age 60. Graduate of the University of Illinois College of Medicine, Chicago, 1901, and licensed in California the same year. Doctor Wells was a member of the Riverside County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Membership Certificates

Upon payment of annual dues each member receives a certificate of membership. These certificates should be framed and displayed in the members' reception room. Such display will serve to acquaint your patients and friends with the fact that there is a county and state medical organization and that you are a member.

During the year the central office receives many lay inquiries on various subjects related to health and medical care. In the replies sent reference is always made to the county society and its members. The fact that you are a member is a valued asset, and your patients should be so informed. Pay your dues promptly, and frame and display your membership certificate. By doing so you may also induce some nonmember to apply for membership.

* * *

San Diego Fair

The San Diego Fair will reopen January 15th and continue through September 9. The Fair management has requested the San Diego County Medical Society and the California Medical Association to sponsor, direct, supervise and censor a scientific medical exhibit. A separate building, having 20,000 square feet of exhibit space, has been placed at our disposal. There will be no financial obligation or responsibility to the Association.

The Executive Committee, on December 1, authorized President Peers to appoint the following committee, which with a similar committee from San Diego, of which Dr. Lyle Kinney of San Diego is chairman, will be in charge of this Hall of Medical Science. The Association's committee consists of the following members: C. G. Toland (chairman), Edward M. Pallette, C. O. Tanner, John C. Ruddock, W. W. Roblee, and Fred B. Clarke.

* * *

Malpractice Insurance

An insurance company has sent out an announcement that on January 1 its rates will be increased 20 per cent. This increase is necessary, it is stated, because of increasing number of suits and larger judgments.

There are several factors that induce suits for which physicians are responsible. The number of suits will be reduced and premium rates will be lowered if physicians would observe the following recommendations:

1. Secure x-ray diagnosis by a roentgenologist in all cases of fracture or suspected fracture.
2. Demand and obtain competent consultations.
3. Keep accurate case records.
4. Be guarded in prognosis.
5. Do not prescribe over the telephone.
6. Refrain from making adverse comments or criticism of another physician's or surgeon's services.
7. Decline to make affidavits.
8. Decline to testify against another physician. You never know when you may be sued.
9. Do not sue for your services until the period of limitation has expired.
10. Do not discuss a case with an attorney or render an opinion.

Observance of these precautions will reduce malpractice suits.

* * *

How to Get Automobile Tax Exemption

The new tax levy on motor vehicles of 1.75 per cent of the market value of the vehicle, is effective January 1. Attorney-General Webb has ruled that veterans are exempt under the tax-exemption law and can apply their exemption to their automobiles if they desire.

It will be necessary, however, in order to obtain this exemption for the veteran to submit to the Motor Vehicle Department his discharge, or a copy of it, and must make affidavit of exemption. This will not exempt him from the usual $3 tax for license plates. For exemption on his other property he must submit similar proof and make affidavit before the county and city assessors.

* * *

Alameda County Health Institute

On November 4 and 5 the first Public Health Institute was conducted in Oakland, under the joint auspices of the Alameda County Auxiliary, Alameda County Medical Association, and the California Medical Association. Other organizations coöperating were the local and State Dental Associations, Anti-Tuberculosis Society, Parent-Teachers, Red Cross, Department of Health, and several other local organizations.

The institute was held in the Civic Auditorium. Some forty-five booths of visual education on health disease prevention and medical care occupied two-thirds of the auditorium. The institute was open to the public from 10 a. m. to 10 p. m. At stated hours during the day members of the Alameda County Medical Association gave demonstrations on some medical subject. A health lecture was given in the evening. Some ten thousand people attended the institute.

* * *

Taxes for Social Security

As far as we have been able to ascertain, this new federal and state tax on wages paid employees does not affect employers who have less than eight persons in their employ. There is some conflict because a state act says "four employes." We may expect a ruling on this conflict.

The following are exempted: agriculture, domestic service, casual labor, crew of a vessel, government employees, and employees of nonprofit organizations, employees of scientific organizations whose members do not receive profit financial dividends. Earnings of proprietors and partners.

It is stated that rules and regulations will be promulgated.

Members are cautioned not to consult local collectors lest a precedent be established. Once a ruling is made it is almost impossible to secure rescinding. If you are in doubt as to whether you come under this tax law, or if certain of your employees are affected by this law, send a statement of facts to the director of public relations. A ruling will be obtained from Counsel and you will be advised.

* * *

Diphtheria Immunization Campaign by the Alameda County Health Department

November 1 to November 15, 1935

For the campaign of immunization against diphtheria, the Alameda County Health Department this year determined to follow the plan suggested by the Public Health Committee of the California Medical Association as published in the September issue of California and Western Medicine.

On October 10 the county health officer held a meeting for the purpose of making preliminary plans with the five district health officers of the department. Letters were then sent out to the practicing physicians within the rural section of the county asking if they would be willing to administer toxoid for $1 per child in their offices if the campaign be limited to a short period, all materials to be furnished by the County Health Department. The physicians of the area were practically unanimous in their agreement to coöperate.

The plan was then submitted to the County Medical Association, and a letter was received by the health officer to the effect that the County Medical Association had given its approval for such a campaign. Approval was also obtained from the county superintendent of schools for the program to be carried on in connection with the rural schools.

Immediately thereafter the nurses of the County Health Department were provided with literature to be distributed in the schools. Information relative to the seriousness of diphtheria, the procedure for immunization and the plan of directing everyone to his own family physician was sent to all the papers, to churches, parent-teacher associations, service clubs, and civic groups. In the schools, new leaflets and additional information were circulated every few days so that probably no home in the county lacked information relative to the campaign.

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† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

This program of education led to a period of two weeks, from November 1 to November 15, during which time the physicians were to provide the treatment in their offices at the reduced fee. The County Health Department provided each physician with alum precipitated toxoid, in return for which the physician agreed to provide the Health Department with a list of those immunized, and also to immuniz free those who were certified by the nurse as being unable to pay.

The period of the campaign has now passed and, while the returns are not complete, it is apparent that approximately two thousand children have been immunized. The general reaction on the part of the physicians is one of enthusiasm for the campaign managed in this way. In previous years the physicians have usually donated their time to go to schools and immunize groups of children. Under this plan, while returns may not have been large, the physicians have received some remuneration for the work they have done.

The furnishing of toxoid by the Health Department has been appreciated by the physicians and by the people of the community, and this, we feel, is a legitimate expenditure for the Health Department. It is felt that a good piece of public health education has been accomplished, first by way of providing information about a specific disease, and second because many people have been taught to think in terms of going to their own physician's office for preventive service.

* * *

Hospital Insurance

The following action of the Council establishes the Association's policy and position in regard to hospital insurance.

10. *Hospital Insurance.*—Dr. Daniel Crosby, representative of the Alameda County Medical Society on the proposed hospital insurance plan in Alameda, stated that it was the desire of Alameda County to have the sanction and approval of the Council for the proposed hospital insurance plan in Alameda County.

As chairman of the Committee on Hospitals, Dispensaries, and Clinics, Doctor Crosby then presented the following recommendations to the Council on behalf of Dr. C. A. Dukes, chairman of the Committee on Public Relations:

"Pursuant to Council action, the Committee on Public Relations and the Committee on Hospitals, Dispensaries and Clinics, at a joint meeting held October 13, 1935, considered Assembly Bill 246. The following recommendations are made to the Council:

"1. The California Medical Association reaffirms its interest and its desire to coöperate with all other agencies looking forward toward the provision of hospital services for the people on the periodical payment plan.

"2. The California Medical Association believes that it is the duty of this organization and an obligation to assume leadership in this movement and make available and proffer advisory counsel to all agencies that propose to supply hospitalization facilities by means of an insurance plan as outlined and provided for in Assembly Bill 246 that was passed by the 1935 session of the Legislature and become a law on September 15, 1935.

"3. For the purpose of preventing untoward conditions and practices, the California Medical Association formulates the following governing policies that must be accepted and observed in every nonprofit corporation writing hospital insurance under Assembly Bill 246 in order that such corporation may secure the approval and endorsement of the California Medical Association.

GOVERNING PRINCIPLES

"1. Hospital services that are provided by nonprofit corporations shall not include medical services or medical care as these have been defined by official action of the House of Delegates of the American Medical Association.

"2. In all such propositions or plans that seek to provide hospital care, the individual shall be accorded a free choice of entering any approved hospital.

"3. The conditions or terms of any policy that provides for hospitalization shall not create an interference with the patient-physician relationship and shall give to the individual the right of free choice of a licensed physician and surgeon.

"Recommendation No. 1. Your committee recommends that the Council delegate to the Department of Public Relations the responsibility of approving the nonprofit corporation policies that are written for the purpose of providing hospital insurance.

"Recommendation No. 2. That the Council delegate to the Committee on Public Relations the authority to act in an advisory capacity to all hospitals, nonprofit corporations and county medical societies that purpose to issue hospital insurance policies.

C. A. Dukes
Daniel Crosby"

It was moved by President-Elect Pallette, seconded by Councilor Ullmann, that the report of the chairman of the Committee on Public Relations be adopted. Carried.

After discussion of the practice of pathology and radiology, on motion of Ullmann, seconded by Kress, the matter was referred to the Committee on Public Relations for the formulation of a resolution and report to the Council at its next meeting. Carried.

Several inquiries have been received and answered by the following letter:

December 12, 1935.

Dear Doctor:—Your recent communication addressed to Doctor Dukes on the question of policy in regard to hospital insurance was referred by him to this office for reply.

May I respectfully refer you to the December, 1935, issue of CALIFORNIA AND WESTERN MEDICINE, page 447, Item 10, of the Council Minutes on "Hospital Insurance"?

By that report you will gain insight as to the Association's policy. The Association through its Department of Public Relations is eager and ready to be of helpful assistance to every hospital or group of hospitals that plan to form a hospital insurance plan.

The Association, however, cannot at this time endorse any plan that includes the practice of medicine or corporate practice of medicine.

This department will be very willing to coöperate in an advisory capacity with any hospital considering insurance plans, but again by precedent and ruling, such requests and plans should first be referred to the proper officials of the county medical society for review and expression of opinion and, having done that, approach to this Association should be made through this department.

In developing a plan and solving features, I am sure you will find helpful suggestions by consulting the plan adopted by the Alameda County Medical Society, known as the "Alameda Plan."

Thanking you for your letter and assuring you of our ever readiness to be helpful, I am

Sincerely,
F. C. Warnshuis, *Secretary.*

This department stands ready to lend its services to the development of plans in order that the best interests of the public, the hospitals, and the profession are conserved. Just as hospitals are surveyed and approved by the College of Surgeons, so does the California Medical Association propose to function in regard to hospitalization insurance plans. When the Association approves a plan in any given location the public will know that the plan is a safe one and not a "racket."

THE WOMEN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. THOMAS J. CLARK ....President
MRS. ELMER BELT......Editor and Chairman of Publicity

County Auxiliary Reports

Los Angeles County.—The Pasadena members entertained the Woman's Auxiliary to the Los Angeles County Medical Association at a delightful luncheon held at the Pasadena Athletic Club on November 26, Mrs. John V. Barrow, the county president, presiding over the first part of the meeting. The spirit of the holiday season pervaded in the luxuriant decorations of flowers and fruits arranged by Mrs. Roy Miller, chairman of program, assisted by Mrs. Morris B. Lerned and Mrs. A. T. Newcomb. The meeting was honored by the presence of Mrs. Thomas J. Clark of Oakland, the state president, who spoke a few words in praise of the loyal support of the members of her board. Mrs. Barrow then presented the gavel to Mrs. Philip Schuyler Doane of Pasadena, who presided during the rest of the program. Mrs. Doane introduced several of the guests at the speakers' table, including Mrs. N. N. Brown of Bakersfield, the Kern County president; Mrs. Frank Andrews of Chicago, and Mrs. James F. Percy, recently returned from an eastern trip and bringing greetings from the State Auxiliary of Pennsylvania, whose meeting she attended.

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† As county auxiliaries to the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Elmer Belt, chairman of the Publicity and Publications Committee, 2200 Live Oak Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Belt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editor to allocate two pages in every issue for Woman's Auxiliary notes.

Mrs. Dale Park of the Home Consumers' Educational Bureau, and a representative of the Parent-Teachers' Association, briefly discussed group hospitalization and consumer education in the field of medical care. A file of the complete state membership of the Auxiliary with names and addresses listed by counties, which had been prepared by Mrs. Edgar Earwood of Hollywood, chairman of the State Mailing Committee, for the use of the state president, was presented to Mrs. Clark as a friendly tribute from the members of the Los Angeles County group.

The afternoon closed with an excellent musical program, which gave evidence of the talent and versatility of the Pasadena members. Mrs. William Arthur Clark sponsored the program, and the following artists participated: Mrs. Clark, violinist; Mrs. Schuyler Dunlap, cellist; Miss Gladys Howson, pianist; and Mrs. Clayton C. Snyder and Mrs. R. I. L. Smith, each of whom gave a group of delightful songs.

During the month the Harbor Branch of the county held their regular dinner meeting on the 22d, with Mrs. F. B. Settle presiding. The evening was given over to a discussion by the members of the Speakers' Bureau of the Woodrow Wilson Junior High School on the subject of the responsibility of scientific medicine to the community.

Another out-of-town group, the Glendale members, gave a dinner dance under the direction of Mrs. W. O. Leach. This was held on the 26th, and attended by eighty doctors and their wives at the Oakmount Country Club. During the after-dinner meetings, Mrs. John V. Barrow addressed the women, while Doctors Barrow and Malcolm Hill led the discussion in the men's group. After the business of the evening was dispensed, music, dancing, and cards were provided for the amusement of the guests.

The Huntington Park members entertained the county board and other guests at a very beautiful tea on December 3 at the home of Mrs. P. A. Gallant, Mrs. Clinton D. Hubbard acting as co-hostess. At the conclusion of a musical program and a talk by Mrs. Barrow, a social hour followed. These active suburban groups have aimed to interest eligible members, and as a result of their social endeavors the mailing list has been increased by about one hundred names this month.

Mrs. Harold E. Crowe, *Corresponding Secretary.*

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Orange County.—The December meeting of the Woman's Auxiliary to the Orange County Medical Association, held on Tuesday, the third, at the home of Dr. and Mrs. H. A. Johnston in Anaheim, was an occasion of complete and satisfying beauty. Besides a large number of members, many guests eligible to membership were present. After a short business meeting, with Mrs. Ray C. Green in the chair, and a charming talk by Mrs. Johnston on increasing our membership, the afternoon was devoted to the rendition of the "Kreutzer Sonata" by well-known and well-loved Orange County artists. Mrs. Ernest Crozier Phillips interpreted Tolstoy's version, and Ollimae Matthews, violinist, and Earl Fraser, pianist, played two movements of Beethoven's "Kreutzer Sonata." The sonata, rendered in such warmly beautiful surroundings, was profoundly moving. Hostesses who aided Mrs. Johnston in serving the tea, which suggested the feeling of Christmas in its every detail, were Mesdames F. E. Coulter, C. A. Neighbors, H. D. Newkirk, C. S. O'Toole, George Paige, W. S. Wallace, and J. A. Wood.

In lieu of a separate meeting next month, the Auxiliary will join with the Medical Association in its regular installation banquet early in January.

Jessie Q. Raitt, *Publicity Chairman.*

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Sacramento County.—The regular meeting of the Woman's Auxiliary to the Sacramento Society for Medical Improvement was held Tuesday evening, November 19, at the home of Dr. Burt Howard, with the president, Mrs. F. N. Scatena, presiding. In compliance with the Executive Board's wishes, Mrs. Scatena and the treasurer, Mrs. T. Binkley, reported that they had mailed letters to all members who were behind with their dues and that several had mailed in their checks at once. Mrs. Binkley reported seventy-six paid-up members. It was moved by Mrs. George Briggs, and seconded by Mrs. E. S. Babcock, that we donate our usual $5 to the Red Cross. Mrs. Scatena reported that Dr. O. S. Cook, president of the Sacramento Society for Medical Improvement, had appealed to her for workers to collect Red Cross memberships from the doctors. She appointed a team of six and, traveling in pairs, they canvassed the offices and reported a complete success in their drive. It was announced that the Christmas meeting will be held at the home of the president, Mrs. Scatena, with the Executive Board members as hostesses.

The business meeting adjourned, and the members enjoyed two piano selections by Miss Boyd ad a splendid review of the book, "Road to War" by Mellis, which was given by Mr. F. Melvyn Lawson of the History Department of the Sacramento High School. Doctor Howard's sister, Miss Nina Howard, presided as hostess and she was assisted by the following: Mesdames George J. Hall, E. Pitts, L. L. Mullin, Samuel Wells, H. Beauchamp, Harlan Smith of Fair Oaks, and Hugo Childress of Ione. Delicious refreshments were served during the social hour following the program.

Sarah L. Brendel, *Corresponding Secretary.*

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San Diego County.—The regular meeting of the Woman's Auxiliary to the San Diego County Medical Society was held on November 12 at the San Diego Club. The honor guest was Mrs. Thomas J. Clark of Oakland, our state president. The luncheon tables were decorated with flowers and tapers in autumn shades of orange and yellow. Reports were given by the chairmen of the various committees in order to give Mrs. Clark a glimpse of the progress of the Auxiliary here.

Mrs. Charles Rees gave a refreshing survey of current medical topics, including the highlights from the recent convention in San Francisco. She stressed the importance of a basic science law and the desirability of having only one State Board of Examiners in order to prohibit the reckless granting of licenses to incompetent men.

Mrs. Clark graciously complimented the Auxiliary on its enthusiasm and interest. She feels that it is the duty of doctors' wives to join the Auxiliary as one means of showing genuine interest in the work of their husbands' profession. The organization was not formed for sociability alone, though that is also an important phase of the Auxiliary's endeavor. Mrs. Clark spoke in glowing terms of the Health Institute held in Oakland on November 4 and 5, and hopes that each Auxiliary will ultimately hold one.

Lucille Newton, *Secretary.*

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San Francisco County.—In the summer of 1935 a number of the wives of physicians who belong to the San Francisco County Medical Society, realizing that their county medical society was one of the few organized groups in the State which were without a Woman's Auxiliary, became founders of such an organization by paying in advance a portion of their annual dues, such dues to be used toward defraying the expenses of organization. These founders were Mesdames Edward C. Bull, Henry H. Searls, Loren R. Chandler, Karl L. Schaupp, George S. Johnson, Rea E. Ashley, Dohrmann K. Pischel, Ludwig A. Emge, Gunther W. Nagel, Carleton Mathewson, Ralph Soto-Hall, Lewis Michelson, Albert V. Pettit, Harry E. Alderson, Donald E. King, and Harry J. Pruett. The first meeting was held September 10 in the rooms of the San Francisco County Medical Society.

The purpose and objects of this Auxiliary are to bring its members into more active affiliation with organized medicine, to coöperate with the San Francisco County Medical Society to conserve and protect public health, and to promote the betterment of the medical profession, to coöperate with organizations of like purposes in all desirable public health work and social welfare, and to become a component part of the Woman's Auxiliary to the California Medical Association. The very large number of doctors' wives who responded convinced the founders they had started an organization in the community which was to fulfill a long-desired want.

The following officers *pro tem* were elected to carry on the business of the Auxiliary until such time as a constitution, by-laws, and regular election of officers should be effected: President *pro tem,* Mrs. A. S. Musante; secretary-treasurer *pro tem,* Mrs. J. C. Geiger, together with the following chairmen of standing committees: Admissions, Mrs. T. H. McGavack; Membership, Mrs. Harry R. Oliver; Publicity, Mrs. Howard B. Dixson; Telephone, Mrs. Morrell E. Vecki; and Transportation, Mrs. Zura O. Waters. Since the first meeting on September 10 there have been three others on Tuesdays at 1:30 o'clock, and this has been voted the regular meeting time. The following additional committees have been appointed by the chair: Mrs. J. B. Herring and Mrs. Coleman A. Block, to act jointly, report on and then purchase the files, minute-book, and printed stationery for the Auxiliary; and a committee from the Auxiliary to help in any way needed during the clinical congress of the American College of Surgeons held in San Francisco the last of October. It consisted of the following: Mrs. Howard W. Fleming (chairman), Mrs. J. C. Geiger, Mrs. Z. O. Waters, Mrs. Edmund Butler, and Mrs. Rodney A. Yoell.

The Auxiliary is growing rapidly. Every mail brings in new applications for membership and an expressed desire to help the Auxiliary in any way possible. The Auxiliary in San Francisco attributes its rapid growth to the great assistance of the Woman's Auxiliary to the California Medical Association and to the help of the San Francisco County Medical Society. Wives, mothers, adult sisters and adult daughters of the physicians who are members of the California Medical Association are eligible for membership. We wish especially to thank Doctor Geiger, Dr. Mary Jones-Mentzer, and Dr. Dunlop Strickler, who have given of their time and wisdom to help us build a strong and an enduring Auxiliary.

Dr. J. C. Geiger, president of the San Francisco County Medical Society and Director of Public Health of San Francisco, was our first speaker, and Dr. T. Henshaw Kelly, chairman of the Council of the California Medical Association, was the second speaker. Both talked on public health legislation. Dr. Chauncey Leake, professor of pharmacology at the University of California, was the third speaker and chose as his subject, *Quacks and Quackery.* He urged the women of the Auxiliary to acquaint themselves with the policies of the medical profession regarding nostrums and quackery and to assist in spreading correct information to lay groups.

At the meeting on Tuesday, November 26, the Nominating Committee will propose a slate of officers. At that time it is also in order to have nominations from the floor, and it is hoped that all members of the Auxiliary will bear this in mind. Four members of the Nominating Committee were nominated and elected from the membership at large during the meeting of October 22; two members were elected by the *pro tem* officers and chairmen of standing committees at a called executive session. They are: Mesdames A. Lincoln Brown (chairman), Emmet Rixford, Thomas McGavack, S. R. Mettier, Z. O. Waters, and Coleman A. Block.

In closing this first report of the Auxiliary to the California Medical Association for their department in California and Western Medicine, we wish to express our thanks to that Auxiliary for its help during our organization and assure them we shall try to do our part as a component unit of the state organization.

Mrs. H. B. Dixon, *Publicity Chairman Pro Tem.*

NEVADA STATE MEDICAL ASSOCIATION

R. O. SCHOFIELD, Boulder City............................President
C. E. SECOR, Elko..President-Elect
HARRY W. SAWYER, Fallon..............First Vice-President
W. H. FROLICH, East Ely..................Second Vice-President
HORACE J. BROWN, Reno..
......Secretary-Treasurer and Associate Editor for Nevada

MINUTES OF THIRTY-SECOND ANNUAL SESSION

Proceedings of the First Day

The thirty-second annual meeting of the Nevada State Medical Association was called to order in the Elks' Hall of Elko, on October, 25, 1935, by President E. E. Hamer at 9:55 a. m. The president's address welcomed those present, and voiced his wish that the meeting would prove both pleasant and profitable. The scientific session was then taken up.

SCIENTIFIC SESSION

A. D. Pranger of Rochester, Minnesota, read a paper on *The Cross-Eyed Child.* No discussion.

John A. Fuller of Reno read a paper on *Common Eye Affections.* Discussed by H. Earl Belnap, A. D. Pranger, and R. Pendleton. The discussion was closed by John A. Fuller.

Eliot Snow of Salt Lake City, Utah, read a paper on *Branchial Cysts and Lateral Cervical Fistulae.* Discussed by R. A. Bowdle, Richard O. Schofield, E. F. Root, and Doctor Snow.

* * *

The meeting was then adjourned, and the members went to Smith's Restaurant, where an excellent luncheon was served.

* * *

Following luncheon, the scientific program was immediately resumed.

Edward S. Pomeroy of Salt Lake City, Utah, read a very interesting paper on *The True Status of Electro-Removal of the Prostate with the Endoscope.* Discussed by J. P. Tuttle, W. G. Schulte, C. W. Mayo, Eliot Snow, and Doctor Pomeroy.

C. W. Mayo of Rochester, Minnesota, read an interesting paper on *Unilateral and Bilateral Hernia: A Comparative Study of Postoperative Complications and the Factors Concerned.* Discussed by R. P. Roantree, R. A. Bowdle, R. Pendleton, and Doctor Mayo.

Nadina Kavinoky of Los Angeles, California, read a paper on *Birth Control.* No discussion.

BUSINESS MEETING

Upon completion of Doctor Kavinoky's talk, F. H. Harrison read a prepared resolution which purported to be in accordance with a resolution of the American Medical Association, also asking support of a bill now in Congress to permit the selling of birth control literature through the mails to physicians only. The motion was seconded by L. S. Bambauer. R. O. Schofield spoke in support of the first part of the resolution, as against the second part; and then offered an amendment providing that the matter be referred to the Judiciary Committee. Seconded by R. A. Bowdle, and carried.

The resolution was as follows:

Whereas, A condition of ill health and a number of deaths in the United States have resulted because of a lack of knowledge of scientific means of contraception; and

Whereas, It is against federal laws for physicians to secure information and supplies by mail, in order to properly advise their patients;

Resolved, We hereby memorialize the American Medical Association by commendation of the action taken by that body in the appointment of a committee to study legislation to permit physicians the legal use of mails for the purpose of securing scientific information and supplies for contraception. Also to urge a recommendation from that committee of favorable action on such legislation now pending in Congress.

The reading of the minutes of the preceding meeting was dispensed with on motion of O. Hovenden. Seconded by R. A. Bowdle.

The Report of the Delegate to the American Medical Association.—The delegate reported that he was unable to attend the annual meeting and was unable to find anyone who could go from this state. E. E. Hamer reported that he attended the special meeting held in February, 1935, as substitute for the delegate, and gave a report of the proceedings of that meeting.

NEW MEMBERS

New members were elected as follows: W. T. Burton, Albert G. Clark, H. B. Elkins, E. J. Garrison, Stanley L. Hardy, R. F. Jaekle, Frank J. Janssen, Walter C. Klein, J. R. McDaniel, William Nethery, Thomas G. O'Dell, F. M. Poulson, Hale B. Slavin, Ferris Summerbell, H. K. Wilson, George S. Weiss, and C. W. Woodbury.

NECROLOGY

The Necrology Committee reported the deaths of Dr. Thomas W. Bath and Dr. Noah Rouse. The committee offered a suitable memorial for Doctor Bath, which was accepted on motion of R. A. Bowdle and seconded by A. J. Hood. Following is the memorial:

Thomas W. Bath

Dr. Thomas W. Bath answered his last call on August 11, 1935. He was an outstanding surgeon in the community. He was an ardent student, sincere, and fearless of criticism when he knew he was in the right. A large part of his life was spent in public service. His untimely death leaves a gap that will be hard to fill.

Doctor Bath was born in Turfields, Wales, and came to Illinois when a little child, where he grew up and received his preliminary education. His medical degree was received from the College of Physicians and Surgeons of St. Louis in the year 1889.

He served in the United States Army in the war with Spain, also in the Philippines and in Cuba. In the World War he was commander of a base hospital in Southampton, England, and at the close of the war was retired with the rank of lieutenant-colonel, an honor of which he was justly proud.

Doctor Bath was a Fellow of the American College of Surgeons, Fellow of the American Medical Association, and a member of the Nevada State and Washoe County Medical Associations, being our faithful and earnest secretary for several years up to the time of his death. He was a member of the staff of both the St. Mary's and Washoe General hospitals.

It is the sense of this committee that the Nevada State Medical Association endorse these sentiments, and extend to the bereaved family our heartfelt sympathy; that a copy of this report be placed among the permanent records of the Society, and a copy be sent to his widow, Mrs. Lulu H. Bath.

HONORARY MEMBERSHIP

On motion of R. A. Bowdle, seconded by R. O. Schofield, the following were admitted to honorary membership: D. L. Alexander, Twin Falls, Idaho; Mrs. Nell Wells Alexander, Washington; John D. Ball, Santa Ana, California; A. W. Adson, Charles W. Mayo, and A. D. Prangon of Rochester, Minnesota; George Cochran, H. P. Kirtley, Edwin M. Neher, Edward S. Pomeroy, Eliot Snow, and R. Pendleton of Salt Lake City, Utah; Stella Hostetler, R. N., and C. E. Whitesides of Elko; Nadina R. Kavinoky, Los Angeles, California; Winifred W. Bambauer, R.N., Fernley; Thomas Lee, Sacramento, California; Beth McDermott, R. N., Wells; R. H. Travers, San Francisco; Lindsay B. Troxler of Philip Morris & Co., San Francisco.

AMENDMENT TO BY-LAWS

R. O. Schofield moved, seconded by A. C. Olmsted, the adoption of the amendment to the by-laws proposed at the last annual meeting. This provides that the first vice-president shall be advanced to president-elect; and the president-elect be advanced to president each year without a vote. Motion carried.

ELECTION OF OFFICERS

The following officers were elected to serve for the ensuing year, with the exception of the delegate to the American Medical Association, whose term is for two years, while the trustee is elected for three years: Second vice-president, W. H. Frolich of East Ely; secretary-treasurer, Horace J. Brown of Reno; trustee, D. A. Turner of Reno; delegate to the American Medical Association, Horace J. Brown; alternate, A. J. Hood of Elko.

ANNUAL SESSION FOR 1936

Moved by R. A. Bowdle, seconded by R. P. Roantree, that the next annual meeting be held at Bower's Mansion, Reno. Motion carried. R. A. Bowdle extended an invitation for the Association to hold its meeting in Ely in 1937.

Moved by O. Hovenden, seconded by R. A. Bowdle, that the secretary be instructed to write letters of thanks to the Elko County Medical Society, the Elko Chamber of Commerce, and the Elko Lodge of Elks. Carried.

FEDERAL RELIEF

Moved by R. A. Bowdle, seconded by O. Hovenden, that it be the consensus of opinion of the Nevada State Medical Association that the Army fee schedule shall be the minimum fee demanded for any service rendered anyone whose bill is to be paid by any Government relief agency. Motion carried. The secretary was instructed to send a copy of the Army fee schedule to each member of the Association, and to issue a bulletin containing the above resolution.

* * *

Proceedings of the Second Day

The meeting was called to order in the Elks' Hall at 9:20 a.m. on October 26, 1935, by President E. E. Hamer, and the scientific session was then resumed as follows:

A. W. Adson of Rochester, Minnesota, read a paper on *The Treatment of Dysmenorrhea and Hirschsprung's Disease by Sympathectomy.* Discussed by E. F. Root and Doctor Adson.

George Cochran of Salt Lake City, Utah, read a paper on *The Medical Management of Peptic Ulcer.* Discussed by L. S. Bambauer, A. C. Olmsted, J. P. Kerby, C. W. Mayo, R. Pendleton, E. S. Kilgore, and Doctor Cochran.

R. Pendleton of Salt Lake City, Utah, read a paper on *Treatment of Major Burns,* which was discussed by R. A. Bowdle, C. W. Mayo, R. O. Schofield, and Doctor Pendleton.

This completed the scientific program.

* * *

The following members were in attendance at various times during the meeting: Horace J. Brown, Lloyd S. Bambauer, Ralph A. Bowdle, H. Earl Belnap, John A. Fuller, O. Hovenden, D. J. Hurley, E. E. Hamer, Fleet H. Harrison, A. C. Olmsted, R. P. Roantree, R. O. Schofield, C. E. Secor, J. P. Tuttle, and J. E. Worden.

The following honorary members and visitors were also present at various times during the meeting: D. L. Alexander, Mrs. Nell Wells Alexander, A. W. Adson, John D. Ball, Winifred W. Bambauer, R. N., George Cochran, R. R. Hampton, Stella Hostetler, R. N., James P. Kerby, E. S. Kilgore, Nadina R. Kavinoky, H. P. Kirtley, Thomas Lee, Charles W. Mayo, Beth McDermott, R. N., Edwin M. Neher, R. E. Pendleton, A. D. Pranger, Edward S. Pomeroy, F. Poulson, E. F. Root, W. G. Schulte, Eliot Snow, R. H. Travers, C. E. Whitesides, R. T. Woolsey.

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Dr. Richard O. Schofield of Boulder City was presented and seated as president for the incoming year by the outgoing president, E. E. Hamer of Carson City. Doctor Schofield made a very pleasing speech of acceptance, which was well received.

There being no further business the meeting was adjourned.

Horace J. Brown, *Secretary-Treasurer.*

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, Kansas City, Missouri, May 11-15, 1936. Olin West, M. D., 535 North Dearborn Street, Chicago, Illinois, Secretary.

California Medical Association, Coronado, May 25-28, 1936. Frederick C. Warnshuis, M. D., 450 Sutter Street, San Francisco, Secretary.

Western Section, American Laryngological, Rhinological and Otological Society, Del Monte, California, February 1-2, 1936. Carroll Smith, M. D., Paulsen Building, Spokane, Washington, Chairman.

Medical Broadcasts*

The American Medical Association broadcasts over the blue network and certain additional stations of the National Broadcasting Company at 5 p. m., eastern standard time (4 p. m. central standard time, 3 p. m., mountain time, 2 p. m. Pacific time), each Tuesday, presenting a dramatized program with incidental music under the general theme of "Medical Emergencies and How They Are Met." The title of the program is "Your Health." The program is recognizable by a musical salutation through which the voice of the announcer offers a toast: "Ladies and Gentlemen, Your Health!" The theme of the program is repeated each week in the opening announcement, which informs the listener that the same medical knowledge and the same doctors that are mobilized for the meeting of grave medical emergencies are available in every community, day and night, for the promotion of the health of the people. Each program will include a brief talk dealing with the central theme of the individual broadcast.

This program is broadcast also on the short waves through KDKA, Pittsburgh, over station W8XK, 11.870 and 12.210 kilocycles.

* * *

San Francisco County Medical Society. — The radio broadcast program for the San Francisco County Medical Society for the month of January is as follows:

Tuesday, January 7—KYA, 6 p. m.
Tuesday, January 14—KYA, 6 p. m.
Tuesday, January 21—KYA, 6 p. m.
Tuesday, January 28—KYA, 6 p. m.

* * *

Los Angeles County Medical Association.—The radio broadcast program for the Los Angeles County Medical Association for the month of January is as follows:

Saturday, January 4—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, January 4—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, January 7—KECA, 11:15 a. m. Subject: The Highway of Life.
Saturday, January 11—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, January 11—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, January 14—KECA, 11:15 a. m. Subject: The Highway of Life.
Saturday, January 18—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, January 18—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, January 21—KECA, 11:15 a. m. Subject: The Highway of Life.
Saturday, January 25—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, January 25—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, January 28—KECA, 11:15 a. m. Subject: The Highway of Life.

Examination of Laboratory Technicians.—More than one hundred candidates for certificates enabling them to hold positions in the health service were just given examinations on the Los Angeles campus of the University of California. They came from all over the southern portion of California. They were attempting to qualify for positions as medical technicians or as clinical laboratory technicians. The examinations were given under the supervision of Dr. W. H. Kellogg, director of the State Board of Health Laboratories, on the Berkeley campus of the State University; Dr. R. V. Stone, director of the Los Angeles County Board of Health Laboratories; and Dr. T. D. Beckwith, professor of bacteriology, on the Los Angeles campus of the State University.

Heart Committee.—The Heart Committee of the San Francisco County Medical Society held its sixth annual symposium on heart disease on November 20-21. The program was arranged by Dr. William J. Kerr and Dr. Arthur Bloomfield. Sessions were held at the University of California, Stanford University, and San Francisco hospitals, and at the Department of Public Health. One hundred and eighty-one doctors registered for the course, representing fifty cities of California. The total attendance numbered 675.

The annual meeting of the Heart Committee was held on November 21 at the County Medical Society. The following officers were elected for the year 1936: J. Marion Read, chairman; John P. Strickler, vice-chairman; Amos U. Christie, secretary.

La Vina Sanatorium.—The La Vina Sanatorium will be rebuilt on the site of buildings which were destroyed with a $125,000 loss in the recent Altadena fire, Dr. Walter A. Hodges, medical director, announced recently.

Doctor Hodges revealed a portion of the loss was not covered by insurance and that the board of directors is accepting donations already toward the construction of the new and modern sanatorium. . . .

"The work at La Vina started twenty-five years ago and, while it is regrettable that the buildings erected by Doctor Stehman's friends and the memories that are attached to these buildings have been destroyed, we are very grateful that all patients were unharmed and safely removed; also that the hospital records were saved. During this period almost three thousand patients were treated at La Vina and many were restored to complete health and are now numbered among our useful citizens.

"While the fire loss is indeed regrettable, it is felt that with newly constructed buildings the splendid work of La Vina will be carried on to greater advantage than ever before. The good work of La Vina is evidenced by inquiries, interest, and sympathy of restored patients and friends who have called in large numbers.

"La Vina is a nonprofit institution under the supervision of a board of directors comprised of the following citizens of Pasadena: Dr. E. P. Clapp, president; J. E. Clifford, vice-president; S. Hazard Halstead, secretary; H. I. Stuart, treasurer; A. L. Rowland, Mrs. H. B. Stehman, General Charles S. Farnsworth, A. H. Fleming, and Dr. J. H. Breyer.

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* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to California and Western Medicine, 450 Sutter Street, San Francisco, for inclusion in this column.

Federal Dole Figures.—Press dispatches from Washington give this information:

STATES MUST AID OWN UNEMPLOYED

U. S. Dole Ends; Nine Millions Allotted to California

Washington, November 29.—(Universal Service.)—Relief Administrator Hopkins announced tonight the federal dole has been abolished, and from now on every state in the Union will have to provide for its own needy unemployed.

The end of the dole was accomplished by arranging final grants to twenty-two states, including approximately nine million dollars for California, in the last few days. Some of the money these states received may be used during next month, officials admitted.

The dole this year cost the federal government $1,179,477,336, up to October 1. The bill from January 1, 1933, to last October 1 aggregated $2,725,907,904.

The "Dole" in Los Angeles County.—News items on this subject of December 6 in the Los Angeles *Examiner* follow:

"Los Angeles County families received $48,433,912 in federal funds as dole payments and as wages for work on relief projects during the last twelve months, according to figures released by the county relief administration.

"This huge sum, it was explained, does not take into account state or local funds expended for relief or expenditures for administrative costs, purchase of materials for projects and project personnel on full time.

"During the twelve months' period, the average number of relief cases has been in the neighborhood of 100,000. The highest case load of 110,065 was in April of this year.

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Charity Recipients Demand Cash Dole

"Substitutions of a direct cash dole for the present arrangement of issuing food baskets to recipients of county charity was demanded by a group appearing yesterday before the County Supervisors.

"Representatives of various organizations whose membership extends among unemployed and charity recipients voiced the demand, and spread out before the Supervisors the purported contents of the standard food package for the officials' inspection.

"In a report read to the Supervisors from the county efficiency bureau, it was stated that to grant the dole request would increase food costs by 42 per cent, since the county buys by wholesale, whereas individuals would buy at retail.

"County Charities Superintendent Rex Thomson and the efficiency bureau were directed by the Supervisors, after the hearing, to make a survey of the situation, especially of those indigents who claim the need of special diets."

Philadelphia Proposed for 1936 American Medical Association Annual Session.—A letter from the Philadelphia County Medical Society states:

"The year 1937 will commemorate the one hundred and fiftieth anniversary of the signing of the Constitution of the United States of America. Two physicians, Dr. James McHenry of Maryland and Dr. Hugh Williamson of North Carolina, were among the signers.

"The American Medical Association was founded in Philadelphia in 1847. Philadelphia will be the pivot of all activities throughout the Union with respect to the celebration of this anniversary. It would be entirely fitting to have the American Medical Association commemorate its ninetieth birthday in its native environment.

"Philadelphia entertained the American Medical Association in 1931, the sentiment of that occasion speaking for itself.

"There has been started in Philadelphia a movement looking toward extending an invitation to the American Medical Association to hold its meetings in Philadelphia in 1937.

"The Philadelphia County Medical Society has adopted appropriate resolutions which were endorsed and heartily approved by the House of Delegates of the Medical Society of the State of Pennsylvania which met in Harrisburg in early October.

"We are asking you to press this invitation on your members and to your delegates to the American Medical Association. We hope the memory of our last meeting in Philadelphia will be such as will enable you to grant this favorable help."

American Board of Ophthalmology.—The 1936 examinations will be held in Kansas City, May 11, (at time of meeting of the American Medical Association) and in New York City in October (at time of meeting of the American Academy). All applications and case reports must be filed at least sixty days before date of examination. For information, syllabuses and application forms, please write to Dr. Thomas D. Allen, assistant secretary, 122 South Michigan Avenue, Chicago, Illinois.

A Martyr to Science: Woman Technician Dies in Study of Meningitis.—The Public Health Service on December 26 recorded on its special honor roll the first woman laboratory technician to die in line of disease-research duty—Anna Pabst, 39. Her life was the sixth sacrificed to scientific endeavor in the service in the last decade.

An animal Miss Pabst was injecting with meningitis serum, in the National Institute of Health Laboratories, December 17, squirmed suddenly, causing some of the culture to squirt in her eye. She was stricken with meningitis while Christmas shopping December 21 and died Christmas night.

War on Infantile Paralysis.—Discovery at the Rockefeller Institute of a nose wash, made from either tannic acid or sodium alum, which protects monkeys from infantile paralysis and is now ready "for trial in man," was reported to the Society of American Bacteriologists on December 26.

A second, entirely different sort of infantile paralysis preventive, found in Vitamin C, the vitamin from oranges, lemons, tomatoes, spinach, cabbage, and lettuce, was reported from Columbia University. The vitamin at Columbia prevented infantile paralysis in monkeys, but under circumstances so peculiar that the vitamin is not ready for trial on children.

News Dispatch: Vaccination with Serums Ordered Stopped by United States Public Health Service.—Vaccination of children against infantile paralysis with either of two widely used experimental serums has been stopped because of a warning by the United States Public Health Bureau that the vaccines are "dangerous," Dr. William H. Park, co-developer of one of the serums, disclosed in New York recently, after nine thousand children already had been vaccinated.

Dr. J. P. Leake, Director of the United States Health Bureau, in his warning to physicians to give up the serums, cited twelve instances in which children inoculated with the vaccines later became infected with paralysis. Six of these died.

First International Conference on Fever Therapy.—The first international meeting on fever therapy will be held in New York City, September, 1936. The use of fever induced by physical and other agencies as a therapeutic procedure has received universal attention in the past few years. Therapeutic, physiological and pathological phases of fever will be discussed.

The suggestion for this conference originated with a group of interested European physicians. Five national conferences have been held in the United States of America. The first three sessions met at Rochester University Medical School in 1931, 1932, and 1933. The fourth assembled at Columbia University College of Physicians and Surgeons in 1934. The fifth was held in 1935 at Miami Valley Hospital, Dayton, Ohio.

It is planned to translate abstracts of all the papers into French, English, and German. In order to make the printed copies of the transactions available for the conference, it is necessary that manuscripts and abstracts be sent in not later than June 1, 1936. Those interested in participating are requested to make early application.

Further information concerning the conference may be obtained from the secretary, Dr. William Bierman, 471 Park Avenue, New York City.

American College of Surgeons Places Los Angeles County Hospital on Approved List.—After years of whys and wherefores concerning the medical unit of the Los Angeles County "General" Hospital (the medical unit is now the Los Angeles County Hospital), the American College of Surgeons at its recent San Francisco session announced in its October Bulletin (Vol. 20, No. 3-A) that the Los Angeles County Hospital was on its approved list, a decision pleasing to the County Hospital authorities and to the more than one hundred Fellows of the College who are on the attending staff of the institution.

A New Problem in Alameda County: Social Medicine on the Ballot.—On December 13, the San Francisco *News* printed the following. (The item did not state whether funds were on hand to carry out the project!):

> Social Medicine to Go on Ballot
>
> East Bay local of the Socialist Party unanimously voted today to place before the electors of Alameda County in the November election an ordinance establishing a system of socialized medicine and dentistry. The ordinance will provide for complete medical and dental service, including hospitalization, for the entire population.

Recent Court of Appeal Decision.—The full opinion of the Court of Appeal mentioned below, printed on page 36 of this issue, is the ruling referred to in the clipping from the Los Angeles *Times*, which follows:

> Medical Aid Policy Void
>
> *Court Declares Insurance Company Cannot Practice Learned Professions*
>
> San Francisco, December 12.—(AP)—The State District Court of Appeal held medical service insurance policies are unlawful in California in a decision today which reversed that of a San Francisco Superior Court.
>
> The Pacific Employers' Insurance Company had obtained a writ of mandate in Superior Court ordering Samuel L. Carpenter, State Insurance Commissioner, to permit the policy to go on the market. The Appellate Court granted Carpenter's appeal, stating the company could not legally engage in "medicine and dentistry."
>
> The policy would have offered to pay hospital, medical and dental expenses for holders.

Cost to Public of Modern-Day Football.—Apropos of the subject, "Cost of Medical Care," the Los Angeles *Herald* of December 11 printed the following item on the "Cost of Modern Day Football":

> Bare College Grid Receipts at Coliseum
>
> The University of Southern California collected in its first six football games at the Coliseum this year a total of $243,940, according to a report of Roy A. Knox, director of the Municipal Bureau of the Budget, on file today. Figures on its last two games were not available.
>
> The University of California at Los Angeles took in at seven football games this year a total of $181,500. The biggest crowd—a $100,000 one—was the one attending the U. C. L. A.-California game.
>
> The preceding figures are gross receipts. Out of the sums collected the universities paid a proportion as rent to the city and county as operators of the Coliseum. This amounts to 20 per cent of the first $10,000 and 10 per cent of the rest.
>
> Total rental paid for the use of the Coliseum by both universities so far this year was $53,187—by U. S. C. $30,387 and by U. C. L. A. $22,800.
>
> Gate receipts for the U. S. C. games were estimated as follows: Montana, $12,110; College of the Pacific, $15,850; University of Illinois, $79,650; Oregon State, $23,330; Stanford, $93,000; and Washington State, $20,000.
>
> At the U. C. L. A. games these estimated sums were taken in: Utah State, $5,000; University of Oregon, $20,000; University of California, $100,000; Southern Methodist University, $45,000; University of Hawaii, $3,250; Loyola, $5,000; and University of Idaho, $3,250.
>
> Visiting teams are paid half of the gross receipts, out of which they pay traveling expenses. The home team pays the rental of the Coliseum out of its share and also the expenses of gatekeepers, watchmen, and incidental charges.
>
> The universities' share of Coliseum gate receipts is used to pay the expenses of baseball, track, rowing, ice skating, tennis, swimming, and other sports, besides expenses of the athletic administrator.

Third International Congress of Oto-Rhino-Laryngologists.—The third international congress of Oto-Rhino-Laryngologists is scheduled to be held in Berlin on August 17 to 22, 1936, immediately following the closing of the Olympic Games.

Doctor von Eicken, general secretary of the Organizing Committee, states that a large delegation is expected from the United States and Canada, and to this end a general invitation is being issued to all members of the American Ophthalmological, Otolaryngological, Laryngological, and Rhinological associations and societies.

Dr. John S. Hickman of Jamestown, New York, has just returned from Berlin and reports that the Organizing Committee is making elaborate plans for the congress, which will be one of the outstanding medical meetings in Europe in 1936.

Popular Medical Lectures.—The Stanford University School of Medicine announces the fifty-fourth course of popular medical lectures (illustrated) to be given at Lane Hall, north side of Sacramento Street, near Webster, on alternate Friday evenings at eight o'clock sharp.

The following lists the speakers and their subjects:

January 3—"Sinusitis, Allergy, and the Common Cold," Edward C. Sewall, M. D.

January 17—"Public, Patient, Physician, and Health Insurance," T. Henshaw Kelly, M. D.

January 31—"Superstitions, Facts, and Theories of Menstruation," C. Frederic Fluhmann, M. D.

February 14—"Success of Control of Communicable Diseases in San Francisco," George H. Becker, M. D.

February 28—"Value and Limitations of Plastic Operative Procedures," Albert D. Davis, D. D. S., M. D.

March 13—"Present Conceptions of the Nature of Mind," Thomas G. Inman, M. D.

"Bounty" Microscope One of Treasures at University of California Medical School.—Textbooks from which the old-time surgeon read while he conducted his operations, so that he would minimize the possibility of a mistake, a microscope taken from the effects of Captain William Bligh of the famous mutiny ship *Bounty* and many other interesting items are included in the exhibits of the recently opened Crummer Room at the University of California Medical School. The room has been named in honor of Dr. LeRoy Crummer (1874-1934), who inaugurated systematic instruction in medical history in the School.

A field medical kit used during the Franco-Prussian War, a set of instruments used by Dr. Beverly Cole, one of the founders of the Medical School, and two other microscopes dating from the seventeenth century, are among the actual surgical devices shown. In the collection of books are ten incunabula or "cradle books" printed before 1500. The oldest book in the collection is a Gerson of 1472, one of the earliest medical classics.

There are several copies of such important medical classics as Hippocrates, Galen, Paulus, Aegineta, Mesue, Vesalius, Phrysius, Harvey, Aselli, Malpighi, and others. There is a copy, in English, of the sixteenth century works of Ambrose Pare, famed Parisian surgeon, prepared by the same publisher who produced the first folio of Shakespeare's works. The bandages used by Hippocrates, "Father of Medicine," are shown in another ancient volume, while not the least important item of the interesting exhibit is a set of unique Ceylonese manuscripts.

Early American medicine is represented in the sere and yellowed classics of Waterhouse and Webster and many other volumes dealing with both early American and early California medicine are included in the collection.

The exhibit shows how completely the old practitioners mastered the fundamentals of medical science, as illustrated by their writings, and the technique of surgical instrument making.

The exhibit was made possible through the generosity of Mrs. Myrtle Crummer Ingram, widow of Doctor Crummer, who has placed his extensive library at the disposal of the School, and through donations made by a number of members of the medical profession.

State Medical Journals Using Copyright.—Last year California and Western Medicine copyrighted its contents. In the last few months several other state journals have taken similar action. The following letter from Secretary Crownhart of the State Medical Society of Wisconsin explains the general reasons:

> "Effective with the December issue of the *Wisconsin Medical Journal,* our society will copyright all editions. I take this first opportunity to advise you that we waive all copyright restrictions for bulletins or journals which are the official publications of any of the constituent state medical associations. Please feel free to make use of any material in our Journal at any time in event that you wish to quote it in part or in whole in your own official publications. In event of long quotations, however, we will appreciate your referring to the fact that it is copyright material.
>
> "The purpose of the copyright is to prevent misuse of material in our Journal by nonofficial publications and misstatements by those in the field of medical economics who are actively opposing the objectives of organized medicine."

New York Polyclinic Medical School and Hospital. At a meeting of the Clinical Society of the New York Polyclinic Medical School and Hospital held on November 4, the following program was presented: 1. "Contributory Causes of Coronary Thrombosis," Cadis Phipps of Tufts University. The discussion was opened by T. Stuart Hart and Louis Gross. 2. "Endothelial Tumors," Dean Lewis of Johns Hopkins University. The discussion was opened by Fred Waldorf Stewart, Nathan Chandler Foot, and David M. Bosworth.

At the December 2 meeting, the two contributions were: 1. "Changing Methods in Radiation Therapy in Malignant Diseases of the Uterus," William P. Healy of Memorial Hospital. The discussion was opened by Maurice Lenz, William Cameron, Malcolm Campbell. 2. "Surgery of the Pancreas," Allen O. Whipple. Discussion was opened by William Barclay Parsons, Ralph Colp, and Edward L. Kellogg.

Dr. Russell L. Cecil gave an afternoon lecture on Wednesday, November 20, on "The Types of Pneumonia."

The National Formulary, Sixth Edition.—The American Pharmaceutical Association announces that its council had officially approved December 16, 1935, as the date when the new National Formulary, sixth edition, was released for sale in all parts of the country, and has also approved June 1, 1936, as the date when the National Formulary, sixth edition, will become official and will supersede the National Formulary, fifth edition.

As previously announced, the National Formulary, sixth edition, will be distributed for the Association by the Mack Printing Company of Easton, Pennsylvania.

The new National Formulary represents a complete and thorough revision of National Formulary, fifth edition. Admissions and deletions are based on information obtained in the U. S. P.-N. F. Prescription Ingredient Survey. This survey was made to determine the materials prescribed and the extent of their use throughout the country. The National Formulary, sixth edition, therefore supplements the scope of the Pharmacopoeia and supplies additional information on samples, formulas, diagnostic reagents, and standards required by the pharmacist in the practice of his profession.

Of the 689 monographs in the National Formulary, sixth edition, 208 are drug or chemical monographs, and 481 are monographs of pharmaceutical preparations. The more important additions have been in the monographs for ampoules, tablets, fluidextracts, syrups, tinctures, and ointments.

Unsatisfactory Terms for Cause of Death. — From the standpoint of vital statistics the following terms are unsatisfactory:

Acute Indigestion—Give the cause.

Burns—State if burning building involved, also nature of burns, scalded or fire.

Bronchopneumonia—Under ten years always give contributory cause.

Cancer—Was the growth benign or malignant?

Childbirth—State fully as to actual cause.

Heart—Cardiorenal; state disease of heart and kidney fully.

Injury—What was the nature of the injury, and was it accidental, suicidal or homicidal?

Lung Trouble — Was it pulmonary tuberculosis? Was it lobar or bronchopneumonia?

Malignant Disease—Was it scarlet fever, diphtheria, cancer, or other disease, to which the very indefinite adjective "malignant" may be applied?

Malignant Sore Throat—Was not this diphtheria?

Malnutrition—What disease caused the malnutrition?

Marasmus—What disease caused the "marasmus"? Was it due to tuberculosis, syphilis, or cholera infantum? State fully, as this return in itself is practically worthless for compilation.

Meningitis—Was it epidemic cerebrospinal meningitis? If so, write exactly in this form, being particular not to omit the word "epidemic." Did it follow scarlet fever, pneumonia, or some acute infection? If so, name the primary disease. Was it traumatic? If so, state the nature of the violence which caused the meningitis. Was it tuberculosis meningitis?

Natural Causes—Name the disease causing death. The statement "natural causes" is entirely worthless, although frequently reported by coroners.

Nephritis—Was it acute or chronic, parenchymatous or interstitial? If acute, occurring in the course of some disease, name the disease causing death.

Paralysis—Give cause of paralysis, if known, or state definite form, as paralysis agitans, infantile paralysis, etc. Did the paralysis follow cerebral hemorrhage? Give the primary cause.

Paralysis of Heart—This is usually a mere synonym of "heart failure" and should never be used or accepted. See "heart failure."

Peritonitis—Give cause of peritonitis. Was it puerperal or traumatic? In the latter case, state mode of injury.

Pneumonia—Lobar or broncho.

Pulmonary Hemorrhage—Was it not due to pulmonary tuberculosis?

Pyemia—What caused the pyemia? Was it puerperal or traumatic? If traumatic, state nature of accident.

Rheumatism—State whether acute or chronic. If chronic, note any organic disease of the heart or other organs resulting therefrom.

Septicemia—See blood poisoning.

Spinal Trouble—Was this a disease of the spinal cord or of the spine and, in either case, what was the disease? Was it Pott's disease of the spine?

Stillborn—Never report a child as stillborn unless dead at birth. If the child survived any time whatever, the cause of death should be stated.

Stomach Trouble—Was it cancer, round ulcer, or other definite disease of stomach? State fully, as this, alone, is very indefinite and unsatisfactory.

Strangulation—Was this strangulation from disease (diphtheria), choking or hanging? If from disease, state fully. If from hanging, state whether suicidal or legal execution.

Suffocation—State very precisely the cause of the suffocation, as this term, returned alone, is very indefinite. See asphyxia.

Teething—Name disease affecting the teething child.

Tonsillitis—Was death not due to diphtheria? This is a suspicious return.

Toxemia—Was this acute or chronic poisoning due to some external agent? Was it autointoxication, due to poisons generated in the body by disease? If so, state the name of the disease.

Tuberculosis—State organ affected. Do not fail to state as pulmonary tuberculosis if lungs were affected.

Tumor—Was it a cancer? Whether a cancer or tumor, do not fail to specify organ or part of the body affected.

Ulcer—State location and cause.

Uremia or Uremic Poisoning—State cause of uremia. If due to an acute disease, the latter should be named as the cause of death. If in Bright's or other organic disease, state fully. Was it puerperal?

Violence—State form of violence and whether accidental, suicidal or homicidal.

LETTERS

Concerning constitutionality of law governing clinical laboratories.*

State of California
Legal Department: U. S. Webb, Attorney-General
San Francisco,
November 19, 1935.

Department of Public Health,
State of California,
State Building,
San Francisco, California.

Gentlemen:—Under date of August 16, 1935, there were presented to this office certain proposed regulations of the State Board of Health concerning clinical laboratories. The regulations purport to be those prepared pursuant to Chapter 638 of the Statutes of 1935, such chapter being entitled:

"An act relating to the conduct of clinical laboratory technologists and clinical laboratory technicians and the issuance of permits to physicians and surgeons conducting clinical laboratories for the purpose of protecting the public health and to provide penalties for the violation of the provisions of this act."

Since that time very careful consideration has been given to the proposed regulations as well as to the Act itself. Certain opinions concerning the Act have heretofore been rendered to you. These opinions dealt with specific questions, but did not touch the constitutionality of the Act.

The consideration given the proposed regulations has disclosed a situation, however, which causes us to conclude that the entire Act is unconstitutional and hence without force or effect.

Section 1 of the Act provides in effect that it shall be unlawful for any person in a clinical laboratory to make any test or examination requiring the application of one or more of the fundamental sciences therein named "unless said person possesses an unrevoked certificate issued one year from and after the date this Act becomes effective." This refers to technicians. The same section makes it unlawful for any person to make any test or examination requiring the application of one or more of such fundamental sciences unless such person "possesses an unrevoked certificate as a clinical laboratory technologist issued ninety days from and after the date this Act becomes effective."

Section 4 of the Act makes it the duty of the State Board of Public Health to issue a certificate of licensure within ninety days "to each person who shall within sixty days after this Act become effective, show proof of having complied with the qualifications of a clinical laboratory technologist as herein defined."

The same section also provides that it shall be unlawful for any person to act as a clinical laboratory technologist without certification as such from and after ninety days of the going into effect of this Act. It is also provided that it shall be unlawful for any laboratory or technologist or physician and surgeon conducting, maintaining or operating a laboratory to employ any technician except such technician be certified as provided in Section 1 of the Act.

You will note that the law does not provide for the issuance by the Board of a certificate of licensure to anyone who does not within sixty days from the effective date thereof show proof of having complied with the qualifications of a technologist.

You will also note that it is the duty of the Board to issue certificates of licensure to technicians found to be properly qualified; but you will likewise note that, according to Section 1, a technician must possess a certificate issued one year from and after the effective date of the Act and a technologist must possess a license issued ninety days from and after the effective date of the Act.

According to the established rules of statutory interpretation, the language "from and after," as used in Section 1, must be interpreted to mean within one year from and after in the first instance and within ninety days in the second instance. This must logically be so because according to Section 4 it is unlawful for a person to act as a technologist without having been certified within ninety days from and after the effective date of this Act.

It is likewise unlawful for any laboratory or person to employ a technician after one year from the date of enactment of the Act into law unless he be licensed. It must hence follow that only those persons can under this law be licensed who come within the purview of Section 3 of the Act as to technologists, and Sections 1 and 4 of the Act as to technicians. Consequently, all technologists must be issued a certificate of licensure within ninety days of the effective date of the Act and all technicians must be issued certificates of licensure within one year from and after the effective date of the Act.

We are forced to the conclusion that unless a person within these respective time limits qualifies for a license he can never receive one and that persons may not hereafter qualify as technologists or technicians because of the limiting language of the Act. This results in a discrimination without a reasonable basis for classification.

Aaroe v. *Crosby*, 48 Cal. App. 424.

There must be a reasonable and just relation to the things in respect to which a classification is imposed.

Barbier v. *Connelly*, 113 U. S. 27.

The statute would, therefore, appear to be unreasonable and arbitrary for the reason that it does not accord equal protection of the laws to all persons possessing the same qualifications as to education. The time when a person possesses certain qualifications is not a recognized method of regulating a business or profession. I am inclined to the view that the Supreme Court would hold that the legislature could not "under the guise of protecting the public, arbitrarily interfere with private business or prohibit lawful occupations or impose unreasonable and unnecessary restrictions upon them."

Liggett Co. v. *Baldridge*, 278 U. S. 105.

It is held in the case of *Louisiana State Board of Medical Examiners* v. *Fyfe*, 111 So. 58, that the State may regulate *within reasonable bounds* the practice of medicine and surgery. It is doubtful if it would be reasonable to permit licensure to those with certain qualifications on a given date and at the same time prohibit licensure to persons having superior qualifications at a subsequent date.

Very truly yours,

U. S. Webb, *Attorney-General.*
By Lionel Browne, *Deputy.*

Concerning baking soda-sodium fluoride poisonings in San Francisco.*

December 13, 1935.

To the Editor:—You have, no doubt, read of the recent deaths in San Francisco of some persons from accidental poisoning by sodium fluoride.

These cases are more remarkable in that there is so little in our medical literature relating to their occurrence. Herzog Medical Jurisprudence mentions cases in not recent accidental and suicidal poisonings in New York and Chicago. We have, in my experience in the San Francisco coroner's office, had two deaths, suicidal, one by ant paste, a white person; another by ant powder, a Chinese.

This is one of a variety of cases in the experience of a coroner's office where deaths happen from some cause where the occurrence, if anticipated, might have been prevented by necessary laws.

A somewhat similar case occurred in San Francisco some years ago, where a concern manufacturing oxygen and hydrogen gas put out, accidentally, a highly explosive mixture of oxygen and hydrogen, which, being used for welding purposes, caused an explosion. The coroner's office immediately examined samples of gas under the same serial number, and finding it to be explosive, by telegram and otherwise, called in all tanks of that serial number, but not before another explosion occurred at a distant point. At the inquest following, the company concerned, through its chemists, was about to prove the explosion to have been an "act of God" when two laborers in the works, suddenly called in by the coroner, testified that in their work of cleaning the batteries they had accidentally disconnected some of the wires and had evidently misplaced them, disarranging the poles. The accident was evidently due to the fact that a young man had been elevated to the position of superintendent of the concern who had not the education in chemistry necessary to direct such important work.

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* See also editorial comment, page 3.

* See also news item printed in December California and Western Medicine, page 455.

We have also had a variety of cases of food poisoning, for example, the *Promethius* disaster where, at the launching of said vessel, a San Francisco caterer supplied a cold luncheon and the potato salad was contaminated, some deaths ensuing, and scores of people made ill. A variety of ptomain poisoning was demonstrated.

We have also had cases where numerous people were infected with trichinosis from eating sausage made of meats not properly inspected.

These events in the life of a coroner crop up at unexpected intervals. All accidents might have been prevented if the cause had been anticipated and necessary legislation enacted. It seems too bad that most of our safety laws, laws for the conservation of human life, must be based upon and follow the death of martyrs to the cause.

In these cases concerned the accident was caused, evidently, by lack of necessary legislation or regulations regarding the distribution or sale of commercial poisons to salvage companies. A barrel of sodium fluoride, part of a large consignment of sodium fluoride shipped through a steamship company to a firm in San Francisco, was damaged in transit and evidently sold to a local salvage company, where it remained on the floor for a considerable length of time.

The purchaser for a large advertising grocery concern, on visiting the salvage company's place of business, saw an unopened barrel of Arm and Hammer brand soda. Inquiring of the salvage people if they had more on hand, and being answered in the affirmative, he told them to send out to his concern all they had. Part of the materials on hand were damaged cases of Arm and Hammer brand in their labeled cartons. These were opened and dumped into barrels. The warehouse man making up the consignment searched through the building for other barrels of soda, and inadvertently included in his collection this damaged barrel of sodium fluoride, which, with some five other open barrels of supposed soda, he delivered to the grocery concern. The contents of only one barrel was tested by this man, this by taste and feel.

These were received by an employee of the grocery store without check or examination and placed on sale, part of which was made into one-pound paper packages marked, in lead pencil, "baking soda." The rest, in open barrels, was scooped out to the individual purchaser in two, three, or five-pound lots, as purchaser desired.

As the barrels became partly depleted, they were, for sales purposes, kept refilled from other barrels. Packages of sodium fluoride without soda were sold as baking soda. Other packages contained mixed soda and fluoride.

Arsenic was found by the chemist of the Department of Public Health in a preliminary test of packages as the major poison, the coroner's chemist finding fluoride as the major poison, also arsenic present in small but variable nontoxic quantities. The presence of sodium fluoride and arsenic at first led to the possibility of insecticide being the source of the trouble. From an authoritative source it was reported that arsenic is present as an impurity in commercial sodium fluoride. Inspectors George Engler and Allan McGinn of the San Francisco Police Department, who were detailed on the case, taking this as a cue began a search for commercial sodium fluoride, which they eventually found and traced from its source to the warehouse, grocery store, and consumer. The finding of our city chemist of the variable presence of arsenic in nontoxic quantities in samples examined was not completely in accord with the theory of arsenic as an impurity of commercial sodium fluoride. A check by the chemist of the U. S. Food and Drug Administration at San Francisco, Mr. Alfred K. Klein, found that the reaction for arsenic was due to the action of hydrofluoric acid upon arsenic contaminated glass bottles used in the test for sodium fluoride. This finding was communicated to the director of our local Board of Health and to the coroner.

Mr. G. J. Morton, chief of the U. S. Food and Drug Administration at San Francisco, has been most accommodating in extending the services of his corps of chemists and well-equipped laboratory, and is conducting further research into the possible presence of arsenic in commercial sodium fluoride.

From a recent book on toxicology the dose to cause toxic symptoms was determined to be 5 grams (77 grains), roughly, one and one-sixth teaspoonfuls; the lethal dose, 10 grams (154 grains) roughly, two and one-half teaspoonfuls. The large lethal dose possibly prevented other deaths.

Three deaths were caused, evidently by the poisonous sodium fluoride, although in two cases the hearts were diseased and the poisons may have been only contributory, and a few people were made ill. The wide publicity immediately given through press and radio saved other lives. About 375 packages are still unaccounted for.

Sodium fluoride melts at 982 degrees centigrade or 1799 degrees Fahrenheit. Acid vapors are evolved at 128 degrees centigrade or 262 degrees Fahrenheit, a possible menace to firemen when quantities are stored in a burning warehouse.

The menace of aged canned and other food materials offered at sales to unsuspecting purchasers was brought out.

The jury's verdict and recommendation follows:

> We, the jury, find that Mary Catherine Ogle, Bessie M. Shufelt, and Albert F. Perry came to their deaths after using baking soda with a mixture of sodium fluoride purchased from Rosenthal's Department Store.
>
> We, the jury, charge both Manno Salvage Company and Rosenthal's Department Store with criminal negligence in the careless handling of the above mixture which resulted in the foregoing deaths.
>
> We, the jury, recommend that the Director of Public Health make a survey of the situation resulting in these deaths and draw up necessary legislation or regulations to prevent a recurrence of this tragedy; and further recommend to the Board of Supervisors that this legislation recommended by the Director of Public Health be passed and appropriate funds be furnished for carrying out this legislation.

Already the necessary steps have been taken to pass legislation governing the control of the purchase and sale of industrial poisons and foodstuffs by salvage companies, this by national, state, and local agencies.

Trusting that this will afford you material for necessary comment which may lead to the further safeguarding of lives of our citizens in the line of food and drug consumption, I remain

Very sincerely,
THOMAS W. B. LELAND, M. D.,
Coroner, City and County of San Francisco.

Concerning the practice of obstetrics.

STATE OF CALIFORNIA
Legal Department
San Francisco,
November 19, 1935.

Dr. C. B. Pinkham,
Secretary-Treasurer,
Board of Medical Examiners,
State Building Annex,
San Francisco, California.

Dear Sir:—In your communication of October 28, 1935, you enclosed a copy of a birth certificate filed with the registrar at Ontario, California, under date of October 17, 1935. You ask whether a chiropractor has the right to do obstetrics and point out that the child in this instance was attended by such a licentiate.

In reply permit me to state that a chiropractor has no right to hold himself out as being entitled to do obstetrics. This office has on many occasions expressed its view that a chiropractic license, which is, according to Section 7 of the Act, a license to practice chiropractic, authorizes the holder thereof to practice chiropractic and that obstetrics is not included in the field of chiropractic.

I may call to your attention, however, the provisions of Section 22 of the Medical Practice Act, which provides that "nothing in this act shall be construed to prohibit service in the case of emergency." Your letter does not indicate whether the chiropractor in question was rendering an emergency service or otherwise. Such is a question of fact which should be determined before any action is taken by or on behalf of the Board.

Section 13 of the Vital Statistics Registration Law, Statutes of 1915, p. 378, as amended, requires in part, with reference to the obligation of certain persons to file birth certificates:

"In case no physician was in attendance it shall be the duty of the midwife or person acting as midwife to file such certificate."

It would, hence, seem to be the obligation of a chiropractor to file a certificate where he attended the birth of a child, and there is nothing in the state law to prohibit his using the suffix "D. C." in carrying out the obligation imposed upon him pursuant to said law.

Very truly yours,
U. S. Webb, *Attorney-General.*
By (Signed) Lionel Browne, *Deputy.*

* * *

Honorable U. S. Webb, Attorney-General,
State Building,
San Francisco, California.

Yours of November 19, re: Chiropractors practicing obstetrics, Opinion No. 10357.

Attention: Lionel Browne, Deputy

Dear Sir:—Many thanks for your opinion (No. 10357) reiterating prior opinions that a licensed chiropractor "has no right to hold himself out as being entitled to do obstetrics," said opinion answering ours of October 28, 1935, to which was attached a birth certificate signed Walter F. Wright, D. C., which certificate was not returned as requested in our letter.

Your opinion indicates that although a chiropractor "has no right to hold himself out as being entitled to do obstetrics," yet because of the phraseology of Section 13 of the Vital Statistics Registration Law, Statutes of 1915, page 378, as amended, a chiropractor may do obstetrics.

This appears to be an instance where the law controlling one commission prohibits a certain thing, whereas the law controlling another state department permits it.

At your convenience, would appreciate the return of the birth certificate issued in the name of Barbara Ann Sarason signed Walter F. Wright, D. C., mentioned in the last paragraph of ours of October 28, 1935.

Very truly yours,
C. B. Pinkham, M. D.,
Secretary-Treasurer.

Concerning publicity given to Red Cross Christmas seal.

To the Editor:—Please allow me to express to you, in behalf of our national officers, our very sincere appreciation for the generous contribution of space which you gave to the American Red Cross in California and Western Medicine. It is only through the splendid coöperation which you and others give to us each November that we are enabled to extend a universal invitation to all Americans everywhere to participate in Red Cross work through individual memberships.

Cordially yours,
Douglas Griesemer,
Director of Roll Call.

Concerning resignation from hospital.

December 7, 1935.

To the Editor:—May I ask you to put in an appropriate place, as a news item, in the Journal something to the following effect:

"Dr. Alfred C. Reed has resigned from the board of directors and staff of Mary's Help Hospital in San Francisco."

Very truly yours,
Alfred C. Reed.

Concerning prize awards for essays on goiter problem.

American Association for the Study of Goiter

To the Editor: — The American Association for the Study of Goiter again offers the Van Meter prize award of $300 and two honorable mentions for the best essays submitted on the goiter problem. This award will be made at the discretion of the society at its next annual meeting to be held in Chicago, Illinois, on June 8, 9, and 10, 1936.

The competing manuscripts, which should not exceed three thousand words in length, must be presented in English and a typewritten double-spaced copy sent to the corresponding secretary, Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pennsylvania, not later than March 1, 1936. Manuscripts received after this date will be held for competition the next year or returned at the author's request. . . .

Very truly yours,
W. Blair Mosser.

SPECIAL ARTICLES

CALIFORNIA CITIES MAINTAIN LOWEST INFANT MORTALITY RATES

California cities again score in the maintenance of the lowest infant mortality rates for cities in the various classifications of population. Among cities having populations of 250,000 and over, San Francisco in 1934 had an infant mortality rate of thirty-three, the lowest of any cities having similar populations throughout the United States. Portland, Oregon, with a rate of thirty-six, secured the second lowest such rate in this classification of population, and Oakland, with a rate of forty, had the third lowest infant mortality rate among large cities of the United States.

Among cities having populations of 100,000 to 250,000, Long Beach with a rate of thirty-one had the lowest infant mortality rate of all cities in this classification of population. The next lowest rates among such cities were secured by Lynn, Massachusetts, and New Haven, Connecticut.

Among cities having populations between 50,000 and 100,000, San Jose, with a rate of nineteen, had the lowest infant mortality rate of all cities having similar populations. New Rochelle, New York, and Evanston, Illinois, with rates of twenty-four and twenty-one, respectively, followed San Jose in maintaining the lowest such rates among cities having similar populations.

No comparisons have been made for cities with populations of less than 50,000 since many cities reported too few births in 1934 to yield reliable annual rates.

These remarkable records of California cities have been maintained over a considerable period of years. Until this year, northwestern cities have maintained the lowest records among large cities of the United States, but now San Francisco, with the low rate of thirty-three, makes the most favorable record of any large city in the country.

The people of San Francisco, Oakland, Long Beach, and San Jose may well be proud of this remarkable record. It is doubtful that any other index to general health conditions can be comparable to that provided by the infant mortality rate. If conditions that are favorable toward the saving of infant lives prevail in any community, it may be regarded, generally, that health conditions for individuals of all ages are equally favorable.

The figures as given in this article, were released by the American Child Health Association of New York City, which issues a statistical report of infant mortality annually. The 1934 report referred to covered 985 cities of the United States.

The urban infant mortality rate for 1934 represents an interruption in the almost constant downward trend in infant mortality throughout the municipalities of the United States. The 1933 rate was exactly one point lower than the 1934 rate. It would appear that in those cities where increased rates are found in 1934, lower rates have prevailed during preceding years. The American Child Health Association comments as follows: "Public health should not slacken its efforts once a low rate has been achieved. Constant vigilance is essential if the low rate rate is to be maintained."—*Weekly Bulletin, California Department of Public Health.*

WILSHIRE MEDICAL BUILDING IN LOS ANGELES

Erected on Property Owned by the Los Angeles County Medical Association

Under the captions, "Plans Completed for Lofty New Structure" and "Thirteen-Story Project and Large Parking-Space Building Slated for Construction," the Los Angeles *Times* of December 8 printed the following article. The relation of this office building to the Los Angeles County Medical Association is commented upon in this issue (page 4). The newspaper item follows:

Powerfully evidencing Los Angeles' recent greatly increasing construction activity and the general improvement in the Southland real estate situation, a new height-limit structure is to be built here—in the form of an addition to the $1,000,000, thirteen-story, height-limit Wilshire Medical Building, situated at the southeast corner of Wilshire Boulevard and Westlake Avenue. The addition, to rise at the south end of the present building's Westlake Avenue frontage, will make the parent structure about one-third larger than it now is. And its size and importance will make the addition the equivalent of many an individual structure of major magnitude.

Together with a large two-story parking structure to be constructed in conjunction with this addition, this construction program will represent a new investment of around $500,000 by the Los Angeles County Medical Holding Corporation, builder and owner of the present building. The addition itself is estimated to cost in the neighborhood of $350,000. The parent building was built in 1928.

The plans call for a Westlake Avenue frontage of about fifty-eight feet, four inches, which will give the entire structure a frontage of slightly more than 125 feet on the avenue. The building's Wilshire Boulevard frontage is 150 feet. The new wing's equipment will include preparation for future air-conditioning installation.

Ground for the addition will he broken early next spring.

A significant fact pointed out by the manager of the building, is that the complete occupancy of the present structure and the demand for space there prompted the new project. A considerable amount of space in the planned addition already has been engaged.

The new construction materially will further the magnitude and importance of that immediate locality as one of the West's most extensive medical centers. On the northwest corner of Wilshire Boulevard and Westlake Avenue stands the eight-story Westlake Professional Building. At the southeast corner of the same boulevard and avenue, and directly opposite the Wilshire Medical Building, is the library and auditorium building of the Los Angeles County Medical Association.

The Belt Medical Building recently was completed at the northeast corner of the boulevard and Bonnie Brae Street.

Contract has been awarded for construction of a medical office building on a site on the east side of Westlake Avenue, between Wilshire Boulevard and Seventh Street, for Dr. George Piness. The project represents an investment of more than $20,000.

Plans for other large construction of medical-center character is contemplated for the area in which these buildings' sites are situated.

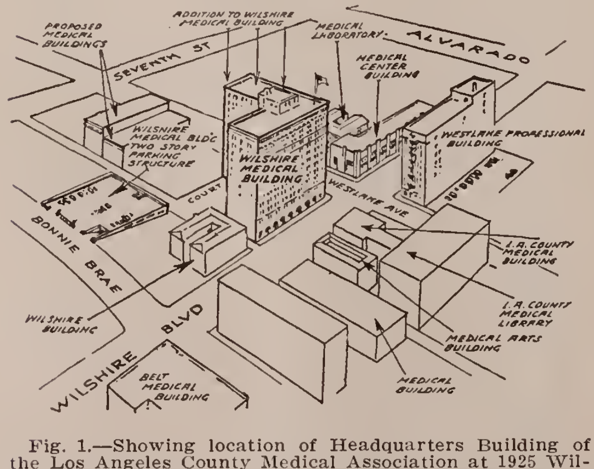
PROPOSED MEDICAL BUILDINGS
ADDITION TO WILSHIRE MEDICAL BUILDING
MEDICAL LABORATORY
ALVARADO
SEVENTH ST
MEDICAL CENTER BUILDING
WILSHIRE MEDICAL BLDG TWO STORY PARKING STRUCTURE
WILSHIRE MEDICAL BUILDING
WESTLAKE PROFESSIONAL BUILDING
COURT
WESTLAKE AVE
BONNIE BRAE
L.A. COUNTY MEDICAL BUILDING
L.A. COUNTY MEDICAL LIBRARY
WILSHIRE BUILDING
BLVD
MEDICAL ARTS BUILDING
WILSHIRE
BELT MEDICAL BUILDING
MEDICAL BUILDING

Fig. 1.—Showing location of Headquarters Building of the Los Angeles County Medical Association at 1925 Wilshire Boulevard and its relation to other buildings in this new medical center.

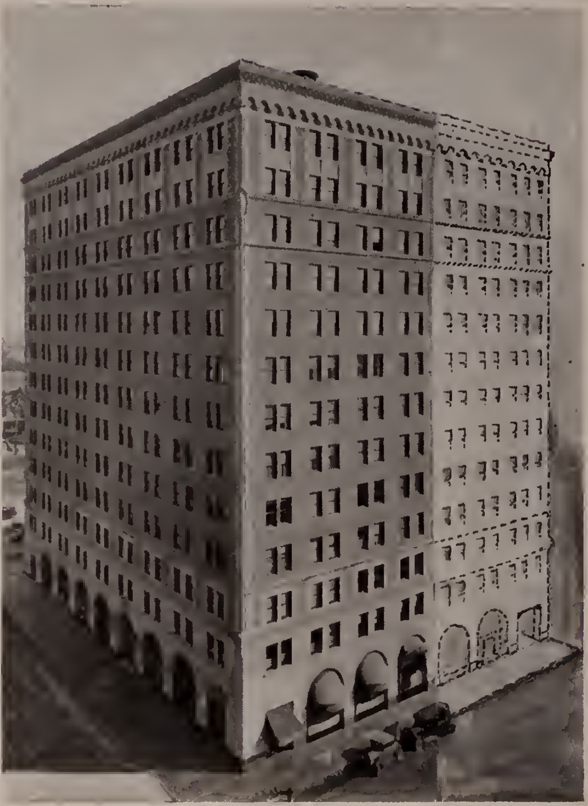

Fig. 2.—Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles. (Proposed addition, fronting on Westlake Avenue, is in lighter detail.)

The parking building, to be constructed by the owning corporation of the Wilshire Medical Building, not only will afford ample free parking space for patrons of that building, but also will be a unique and attractive architectural development in that locality. Work on it will be started within two weeks. It will occupy a site on the west side of Bonnie Brae and about 100 feet south of Wilshire Boulevard. Its street frontage will be 100 feet and its westerly depth 150 feet.

Because of the ground slope there, its roof on the Bonnie Brae side will be level with the street and, while the roof will afford parking facilities, it will be so ornamented as to present a landscaped appearance. The west two-story side of this structure will front on the lane there and the area between it, and access to the medical building will be entirely paved. An ornamental doorway will open from the medical building to this area.

MICHIGAN STATE MEDICAL SOCIETY'S REPORT ON "A. M. A. SPANKINGS"

The *Journal of the Michigan State Medical Society* (on page 709 of the November, 1935, issue) printed the "Report of the Delegates to the American Medical Association" (June, 1935, Atlantic City session).

The August issue of California and Western Medicine (page 105) gave expression to California's reaction on certain events which took place in Atlantic City. Wherefore, the point of view of the delegates from Michigan may be of sufficient interest to be incorporated into the record (referring in that connection, particularly, to those official representatives of the American Medical Association who, directly or indirectly, inspired or permitted the "spanking" news items to be distributed by the national press associations).

Excerpts from the Michigan report follow:

Report of Delegates to the American Medical Association

Because of no previous opportunity to report on the special session, your delegates present herewith a combined report of the special meeting of the House of Delegates of the American Medical Association and the regular meeting held at Atlantic City in June. . . .

The Atlantic City Session

The 1935 Atlantic City session of the American Medical Association House of Delegates held June 11 to 15 was somewhat apathetic as compared with previous sessions in recent years. This was perhaps due to the fact that the action taken at Chicago had deprived the membership of much argument and debate on a subject of vital interest to all.

A curtain of gloom somewhat overshadowed the otherwise peppy atmosphere of the opening session of the House by the announcement that Speaker Warnshuis had unexpectedly suffered the loss of his oldest son. This necessitated his absence until the second session on Tuesday morning.

Despite the apathetic atmosphere there were, however, some interesting things presented of interest to the entire profession. . . .

An interesting sidelight to an otherwise apathetic house was the query by the "stand pat" Republicans of Massachusetts through their good-natured bewhiskered delegate, Dr. C. E. Mongan, who requested that the representatives of the California State Medical Association explain its action relative to health insurance. Doctor Kelly, chairman of the Council of the California State Medical Association, gave a very able and clear explanation. It appeared from his talk that the action of the California State Medical Association was a political expedient, necessitated by the situation that exists in California. His explanation was apparently well received by the House, but subsequent transactions made it appear that California was spanked for its actions. Doctor Kelly's explanation was not published in the transactions of the executive session, but copy and a complete explanation of California's actions have been prepared by the California State Medical Association in the form of a reprint and can be had upon request by addressing Secretary Warnshuis at San Francisco.

Dr. G. R. Leland, Director of Bureau of Medical Economics, presented a special report which was referred to the Reference Committee on Medical Economics without reading. Copies of this report were distributed to the membership and contain recommendations to state and county societies on sickness insurance. It was recommended as a final action of the House that counties, attempting to develop plans, do so with the utmost care and study and that plans be submitted to their respective state organizations for approval before instigation.

The election of officers presented on the surface no excitement, yet one of the most significant changes in more than a decade occurred when Michigan's former secretary, Dr. F. C. Warnshuis, was defeated for the office of speaker by Dr. Nathan B. Van Etten of New York by a vote of 80 to 71. Doctor Van Etten, like his predecessor, is a cultured gentleman of Dutch descent, was vice-speaker for three years and upon various occasions has evidenced able qualifications for this important post.

From the figures you will note that the victory was not so overwhelming, Doctor Van Etten being the victor by but nine votes. It was generally conceded that Doctor Warnshuis' defeat was not due to inability or impartiality, but rather to political expediency. It has been suggested that because of California's action on sickness insurance he might have been reëlected had he remained in Michigan. Yet this argument is quite out of harmony with other events during the election of officers. You are aware that Michigan had a candidate for member of the Board of Trustees in the person of Carl F. Moll, than whom no finer man could be found in any state to grace the dignified table of the Board of Trustees. His fairness, ability, and adherence to the sound principles of organized medicine stamp him as timber without a flaw. Although Doctor Moll was not elected to the Board, Doctor Moll in person was not defeated. Apparently he was, as has been suggested in our Journal editorially, simply the goat for an undeserved but effective chastisement to Michigan for its action in presenting certain resolutions at the Cleveland meeting in 1934. Although we were disappointed in defeat we hold no ill will toward the House membership, being convinced that misunderstanding and incorrect opinions will some day be replaced by confidence and consequent vindication. . . .

"AND/OR"*†

Most intelligent laymen regard the jargon of lawyers as an obvious trade trick, a professional pig-Latin calculated to obscure otherwise simple matters and impress clients with the indispensability of their services. Fortunately, most of their pompous verbal mumbo-jumbo is harmless tautology. But at least one legal usage—"and/or"—is dangerous nonsense.

Many a suit at law has hinged on the interpretation of an "and/or." Usually the decision has gone against the drafter who slipped that literary what-not into his contract. An early instance is a case decided in a British court on February 8, 1855. A shipper named Cumming had accepted from a shipowner named Cuthbert a contract to provide one complete cargo of "sugar, molasses and/or other lawful products." After Shipper Cumming had loaded on every puncheon of sugar and molasses the ship would hold, some odd space remained. He left it empty. Owner Cuthbert claimed he should have filled it with "other lawful products," brought suit for £139, 8*s*., 3 *d*. damages. The trial judge ruled that the ambiguous "and/or" in Owner Cuthbert's contract had rightfully entitled Shipper Cumming to do as he pleased about odd space.

Last winter Virginia's Carter Glass, as chairman of the Senate Appropriations Committee, found the Relief bill shot through with such befuddling phrases as "The President is authorized . . . to make grants and/or loans and/or contracts." Flying into a fine rage, the peppery little Virginian marched out on the Senate floor, successfully defended his action in striking out "the idiotic expression 'and/or'" wherever it appeared in the bill. To his support Senator Glass summoned an impressive battery of opinion against "and/or."

"It is a bastard," said Lawyer John W. Davis, "sired by Indolence (he by Ignorance) out of Dubiety. Against such let all honest men protest."

"I am delighted," wrote one-time Attorney-General G. W. Wickersham, "that you have taken up the removal of this inaccurate monstrosity of expression from laws passed by the Congress of the United States."

"The expression 'and/or' is a split personality, a grammatical psychopath," declared a Baltimore *Sun* editorial entitled "Grand 'And/Or' Old Carter." "If Senator Carter Glass can succeed in removing it at least from our federal legislation, he will deserve the thanks of a confused and/or harassed populace."

Last week lovers of verbal clarity placed the eldest of the Wisconsin Supreme Court's seven justices on a pedestal beside Senator Glass. Up for decision had been a complex case involving an insurance company which insured "C. D. Brower, Jr., and/or the Sturgeon Bay Company," against liability for accidents except "to any employee of the assured. . . ." Brower was a trucker who had contracted to do a job for Sturgeon. When a Sturgeon employee was injured in a collision with a Brower employee the insurance company tried to wiggle out of paying Brower's damages by arguing that the policy ran jointly and its "and/or" had really meant simple "and."

The decision was written by Justice Chester Almeron Fowler, a handsome, upstanding, straight-thinking gentleman who golfs, fishes, camps, walks two and one-half miles to his office every day and will probably celebrate his seventy-third birthday this week by a brisk game of curling. Famed for his verbal vigor, old Justice Fowler growled in his insurance case decision:

"It is manifest that we are confronted with the task of first construing 'and/or,' that befuddling, nameless thing, that Janus-faced verbal monstrosity, neither word nor phrase, the child of a brain of someone too lazy or too dull to express his precise meaning, or too dull to know what he did mean, nor commonly used by lawyers in drafting legal documents, through carelessness or ignorance or as a cunning device to concel rather than express meaning with view to furthering the interest of their clients. We have ever observed the 'thing' in statutes, in the opinions of courts, and in statements in briefs of counsel, some learned and some not."

Ruling flatly against the insurance company, Justice Fowler declared: "If the construction given [by the Court] differs from the meaning actually entertained and intended to be conveyed by the company when it issued its policy, the company has only itself . . . to blame, and it is justly penalized for attempting to express—or perhaps to conceal—the meaning intended by the use of a mere mark on paper."

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* Reprinted from *Time*, December 23, 1935.

† The California District Court of Appeal opinion denying corporations the right to practice medicine, and printed in this issue, quotes an "and/or" policy. See page 36.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. IX, No. 1, January, 1911

From Some Editorial Notes:

The New Year.—A new year and a new volume of the *Journal*; three hundred and sixty-five blank days with their unknown happenings-to-be and about as many blank pages to contain unknown chroniclings of as yet unhappened things. How stale and flat life would be if one knew a year ahead just what was going to happen; to awake every morning with a knowledge of every incident of the day ahead! Why, it would almost be enough to make one fool the fates and quit!

* * *

Just Lies.—It is difficult to imagine anyone with sense enough in his head to be the manager or editor of a magazine of any sort, kind or description, really believing that there never was a case of plague in California and that the whole "plague scare" was merely a deep-laid plot of the Marine Hospital Service. Of course it is *possible* that some such idiot may be alive and may be running a magazine and may really believe that tommyrot; "all things are possible, but some of them are darn scarce." When the *Twentieth Century Magazine* publishes that sort of article and sends slips broadcast over the country calling attention to it, it is a good deal easier to believe that the magazine has been "influenced" to publish the article and that someone has paid for it and paid for advertising it. The slip in question says that "the writer shows up the reasons for declaring San Francisco an infected port, and says that no alleged case of bubonic plague in San Francisco was ever diagnosed as such by the attending physician, while the victim was alive or after death." That is just a plain lie. . . .

* * *

Division of Fees. — A committee of the Los Angeles County Association has prepared some resolutions on the subject of the division of fees between physician and surgeon, without the knowledge or consent of the patient, that are most timely; they will be found in full on another page of the *Journal*. . . .

* * *

Medical Expert Testimony.—It is hoped the profession will give their earnest support to this bill, which will be presented at Sacramento this winter. California should take pride in the effort to be the first state in the Union to accomplish a radical reform in respect to medical expert testimony. The bill as it will be presented will have the unanimous endorsement of committees from the Los Angeles and San Francisco County Medical Societies and Bar Associations, and probably from the State Bar Association. . . .

* * *

Venereal Diseases.—Under date of October 1, the State Board of Health sends out a notice to the effect that beginning January 1, 1911, syphilis and gonorrhea shall be reportable to the health authorities as infectious diseases. It will be a very difficult thing to enforce this rule and the board has wisely decided that cases may be reported by office numbers and not by the names of the patients. . . .

* * *

Scientific Program.—The Committee on Scientific Program for the State meeting at Santa Barbara is arranging a program which it trusts will meet with the cordial approval and support of the profession of the entire State. It has seemed to the committee that a fewer number of

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† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

(Continued in Front Advertising Section, Page 23)

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"Guarantees to insurance policyholders of medical and dental services by the company's staff constitute unlawful practice, it was ruled by the State District Court of Appeal yesterday in the case of the *Pacific Employers' Insurance Company* vs. *Samuel L. Carpenter, Jr., State Insurance Commissioner.* E. Forrest Mitchell, Carpenter's predecessor, refused approval of such insurance policies in 1934. The San Francisco County Superior Court issued a writ of mandate compelling the insurance commissioner to approve the policies. Yesterday's decision reversed the Superior Court judgment on the ground that it is unlawful for a 'middleman' to make profit from learned professional services. Insurance companies which merely promise to pay the policyholder's expenses in the event of illness are not affected by the ruling, it was said." (San Francisco *Examiner*, December 13, 1935.)

"Inventor Fred W. Reed must cease shining his health-ray machine on people, and Naturopaths Arthur O. Borland, Ray Borland, and Jack Borland, all of Hawthorne, must cease naturopathing. Federal Judge Leon R. Yankwich today had dismissed their petitions seeking injunctions to restrain the State Board of Medical Examiners from interfering with their business." (Los Angeles *Post-Recorder*, December 10, 1935.) (Previous entry, December, 1928; May and December, 1935.)

"Dr. St. Louis Estes, nationally known lecturer, unexpectedly pleaded guilty today to two counts of a four-count federal indictment charging him with misuse of the mails. Estes' plea was entered after his case was set for trial before Federal Judge William P. James. The court referred the case to the probation officer, and set January 20 for sentence. The plea was entered after attorneys for the lecturer had conferred with United States Attorney Peirson M. Hall, who agreed to dismiss two of the counts to save the Government the expense of a trial. By the compromise, a charge against Estes' wife was dismissed. In the indictment, Doctor Estes was charged with having defrauded persons throughout the country by taking subscriptions for a book, 'How to Live 150 Years.' The book never was published." (Los Angeles *Post-Recorder*, December 10, 1935.)

"Immediately after final arguments had been concluded in the trial of Dr. H. N. Tatem on a charge of practicing medicine without a license, the chiropractor was placed on trial in Municipal Judge Leo Aggler's court yesterday on a second charge of violating the Chiropractic Practice Act. Judge Aggler continued the instruction of the jury in the first case until this morning, and also will instruct the second jury at that time. Principal witnesses against Doctor Tatem were Mr. and Mrs. Walter Taylor, who, with Jerry Bellevue, are facing trial in Superior Court on charges of attempting to extort $1,400 from Doctor Tatem by making him pose at gunpoint in his underwear while photographs were taken. The Taylors testified in the present trial that Doctor Tatem performed an illegal operation upon Mrs. Taylor." (Los Angeles *Illustrated Daily News*, December 11, 1935.)

"E. B. Hartman, San Bernardino chiropractor, whose conviction on charges of violating the State Medical Prac-

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† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

(Continued in Front Advertising Section, Page 28.)

Announced by

BAXTER

at the XXVth Clinical Congress of the American College of Surgeons

VACOLITER
VACOLITER 1136
6% ACACIA

6% Acacia Solution

A Substitute for Blood Transfusion in the Treatment of Acute Hemorrhage or Shock.

in the VACOLITER

Administered as Readily and Simply as Intravenous Dextrose.

- In restoring and sustaining dangerously depleted blood volume, Baxter's Acacia Solutions offer proved therapeutic value with . . . instant availability . . . compatibility with all blood groups . . . freedom from harmful reactions . . . simplicity of administration . . . economy.

- The literature on intravenous acacia stresses the necessity for proper preparation of the solution. Baxter's Acacia is carefully prepared with the established Vacoliter technique and sterilized in the sealed Vacoliter. Before release to the profession, each lot must satisfy the exacting requirements of the chemical, bacteriological, and biological tests applied to every Vacoliter solution—your final assurance of complete safety.

6% Acacia in Physiological Sodium Chloride Solution, Plain or with 5%, 10%, or 20% Dextrose, is available in 1000 cc. and 500 cc. Vacoliters. "Acacia Intravenously" with bibliography sent at your request.

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(INCORPORATED)
RESEARCH AND PRODUCTION LABORATORIES, GLENDALE, CALIFORNIA

St. Mary's Hospital

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SAN FRANCISCO, CALIFORNIA

Conducted by Sisters of Mercy

Accredited by the American Medical Association and Approved by the American College of Surgeons. Open to all members of the California Medical Association. Accredited School of Nursing and Out-Patient Department.

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SAN FRANCISCO

A Limited General Hospital of 200 Beds

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Fully approved by the American College of Surgeons and the American Medical Association for Resident and Intern Training.

Limited Facilities for Part-Pay Treatment

CHURCH'S GRAPE JUICE

Made from fully ripened Concord grapes. No sugar, water, or other substance is added, as it is *naturally sweet* with its own grape sugar.

The Quality of Church's Grape Juice is due to the soil and climate in the Kennewick area on the banks of the Columbia River, where the grapes are grown.

Church's Grape Juice was awarded Gold Medals at the Panama Pacific International Exposition and the Panama-California Exposition, and has been given the seal of acceptance by the American Medical Association.

Church Grape Juice Co.
KENNEWICK, WASHINGTON

BOARD OF MEDICAL EXAMINERS

(Continued from Page 30)

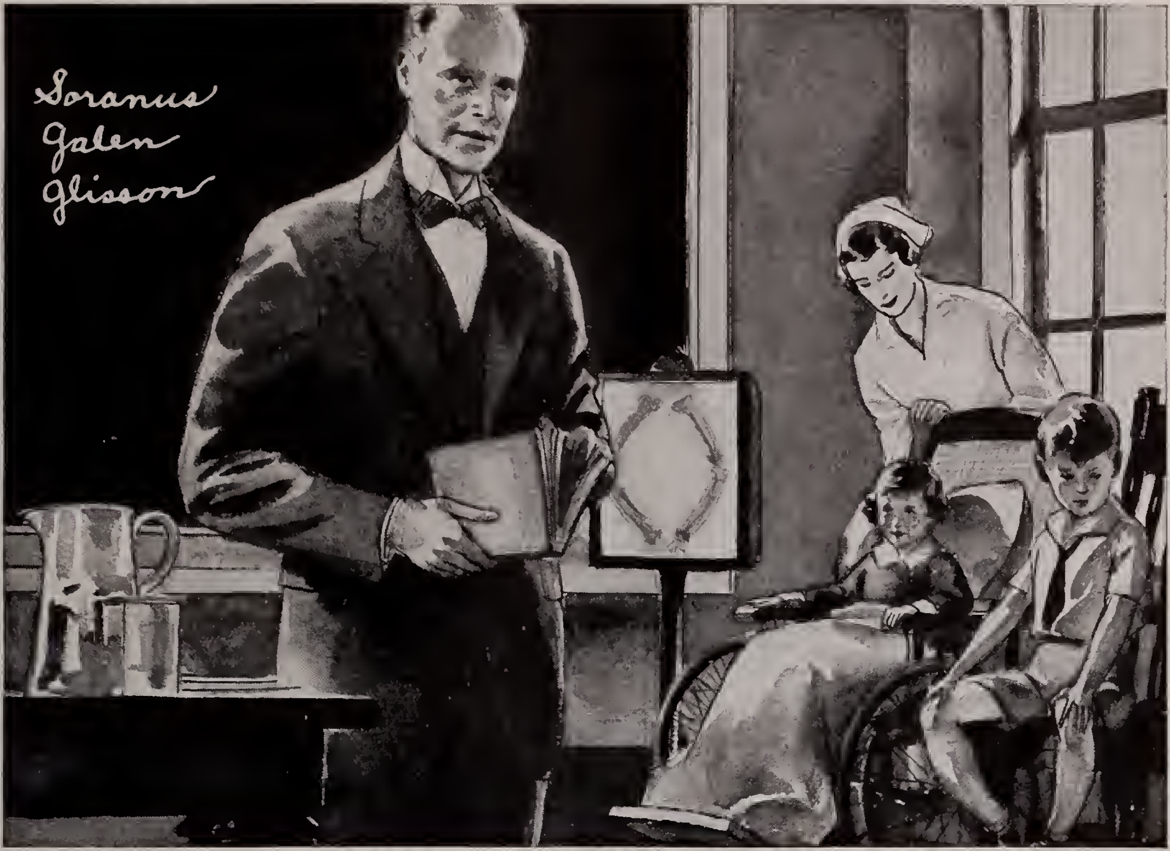
ing Taplin ordered that Noland pay $100 and spend thirty days in jail on each of two counts, but suspended the sentence and placed him on two years' probation, with the provision that the fine be paid." (Hollywood *Citizen-News*, November 13, 1935.) (Previous entry, December, 1935.)

"'This is the man! I'd know him in a million.' With her hand on his shoulder, Miss Belle Petros, 718 Forty-eighth Avenue, San Francisco, thus identified Dr. D. A. Monheit, Oakland chiropractor, as the hit-run driver of the machine she saw kill John DeMace. . . . She told how from the window of her former apartment at the corner of Seventh and Clay streets she saw the driver of the car stop after knocking DeMace's body twenty feet, stand over the body as it lay in the gutter, then speed away in his machine. . . ." (San Francisco *Examiner* (East Bay Section), November 22, 1935.)

"Action of the State Board of Pharmacy which had included thyroid, dinitrophenol, and their preparations and derivatives, under the schedule of poisons has been rescinded. . . ." (Fullerton *News-Tribune*, November 15, 1935.)

"Mrs. Lupe Munoz was cured yesterday. Not cured of her bodily ills, perhaps, but cured of her faith in panaceas peddled by strangers, for Mrs. Munoz appeared at Oakland police headquarters to ask that a search be made for a mysterious 'Dr. Karl K. Karolina of Tulsa, Oklahoma.' She also asked police to hunt $60 in bills and a seventeen-jewel gold watch which disappeared coincidentally with 'Doctor Karolina.' Mrs. Munoz said 'Doctor Karolina'

(Continued on Page 38)



"Gentlemen, it is with pride in our profession that I tell you of my difficulty in getting clinical material to illustrate our discussion of rickets today. Twenty years ago . . . "

THE above picture was suggested by a situation arising at a recent medical meeting attended by thousands of physicians. Their comments revealed a country-wide decrease in the incidence and severity of rickets, the result of clinical application of modern developments in the science of nutrition.

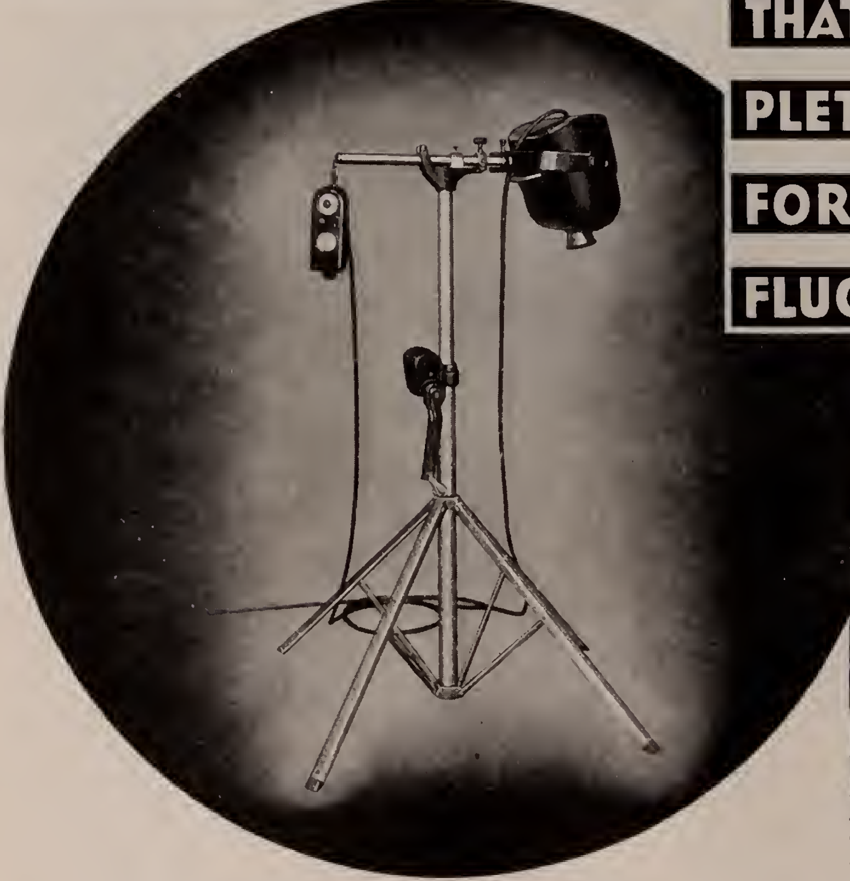
Three minims of Haliver Oil with Viosterol, in a tasteless gelatin capsule, or delivered from a dropper, provide at least as much vitamin A and vitamin D as four teaspoonfuls of Cod-Liver Oil (minimum standards U. S. P. X revised 1934).

Parke-Davis Haliver Oil with Viosterol has a vitamin A activity of not less than 50,000 U. S. P. (1934 Revision) units per gram; and vitamin D activity of not less than 10,000 U. S. P. (1934 Revision) units per gram.

Parke-Davis Haliver Oil with Viosterol is available in 5-cc. and 50-cc. amber bottles with dropper, and in boxes of 25, 100, and 250 three-minim gelatin capsules.

PARKE, DAVIS & COMPANY • *Detroit, Michigan*

Now... A PORTABLE X-RAY UNIT THAT PROVIDES COMPLETE ANGULATION FOR RADIOGRAPHIC & FLUOROSCOPIC WORK



Packed in its two zipper-type, featherweight cases, the entire Keleket Portable takes up no more room than your golfing equipment.

FACILITY in every day use is a most vital factor in Portable equipment. That is why all requirements for complete angulation, positioning, carrying, and safety have been stressed in the design of the Keleket Shock-proof Portable.

Such facilities as stereoscopic shifting mechanism, and other features usually found only on the most elaborate diagnostic equipment, are included in its design. Entirely exclusive to Keleket is the compact elevating device which provides flawless up and down movement. The collapsible tube stand folds quickly and easily for carrying.

The Keleket Shock-proof Portable stands supreme as a brilliant example of traditional Keleket ruggedness, simplicity, and capacity. Write for complete catalog and demonstration.

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EXbrook 5090

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LOS ANGELES, CALIF.
EXposition 1189

HOLDING THE MIRROR UP TO NATURE

"To hold, as 'twere, the mirror up to Nature"
—Hamlet, Act III, Sc. 2

Because physicians agree that Nature's breast milk is ideal, S. M. A. is made to resemble breast milk in many* ways. We have undertaken "to hold, as 'twere, the mirror up to Nature," by making S. M. A. as similar to breast milk as possible.

When diluted according to directions, S.M.A. resembles breast milk not only in percentages of carbohydrate, protein, fat and total salts (ash) content, but also in the chemical and physical constants of the fat, in the kind of carbohydrate present, and in the correlation of the constituents.

This similarity makes it easy to start the infant on supplementary feedings of S. M. A., gradually shifting over to complete feedings of S.M.A. The physician finds S.M.A. simple to prescribe and the mother gratefully finds it simple to prepare. The antirachitic factor is included and there is no extra Vitamin D to buy.

Moreover, the liberal provision of Vitamin A activity is constant and uniform in S.M.A. throughout all seasons of the year, whereas this factor is variable in cows' milk, fresh or evaporated.

Samples and literature available to physicians on request.

* S.M.A. is a food for infants—derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is *essentially similar to human milk* in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

S.M.A. CORPORATION • CLEVELAND, OHIO

Pure as Sunlight

Drink
Coca-Cola
Delicious and Refreshing
Coca-Cola
Coca-Cola

The proof of its *purity* is in the testing. Twenty-two scientific tests for *purity*, covering every step in its preparation, safeguard this drink of natural flavors.

Coca-Cola Co., Atlanta, Ga.

BOARD OF MEDICAL EXAMINERS

(Continued from Page 34)

appeared several days ago at her home at 348 Union Street to inquire if anything was wrong. Mrs. Munoz replied she had plenty of aches and pains. 'Doctor Karolina' informed Mrs. Munoz that hiding money would cure her. He returned yesterday with a large bowl of sand. Mrs. Munoz dug up $60 in currency and hid the bills carefully in the sand while 'Doctor Karolina' acted as official observer. He noted she was wearing a valuable watch, and suggested that be hidden also. Then 'Doctor Karolina' patted the sand down carefully and departed. He said he would return in an hour, by which time all the aches and pains would have vanished. Several hours later the aches and pains were still there, but 'Doctor Karolina' was not. Mrs. Munoz investigated the bowl of sand and discovered the money and the watch were not there." (San Francisco *Examiner* (East Bay Section), November 26, 1935.)

Investigation reports relate that an individual signing checks "R. J. Burke, M. D.," which were found by merchants to be "N. G.," recently pleaded guilty in the court of San Francisco Municipal Judge Alden Ames, who imposed a sentence of ninety days, suspended on condition that he return to the various persons in San Francisco the money of which he had defrauded them, and that he also discontinue representations that he is a physician. In a statement to our investigator, Burke related that his only professional training was a short course in the so-called "American College" at Chicago, which institution is said to conduct a correspondence course in physiotherapy, electrotherapy, physical culture, etc.

This is moral perfection: to live each day as though it were the last; to be tranquil, sincere, yet not indifferent to one's fate.—Marcus Aurelius.

The Value of Laboratory Tests for Water.—This article is designed to aid those who for various reasons suspect the safety of their water supply.

It is not generally understood how little useful information may result from a single test made without any knowledge regarding the source of the sample, the nature of the surroundings, the cleanliness of the container, the temperature condition and elapsed time in transit, the method of taking the sample, etc.

A careful reading of the following may clear up in many minds the doubts regarding a given water supply without recourse to a laboratory test. Such tests are not made routinely by the State Laboratory for reasons that will also be clear on further reading of this discussion.

Water may be undesirable for drinking purposes because of turbidity or because of unpalatable tastes from the presence of decaying vegetable matter in the case of a spring, or of salts in the case of a well water. Such things are not matters of health, but of taste, and they are not settled by laboratory tests.

Water may be really unsafe from very few causes. These causes are the presence of disease producing bacteria or of harmful mineral ingredients. The latter can be ruled out at once for the reason that in all the years of our experience we have never encountered in California a natural water that would be harmful by reason of mineral content, excepting in certain desert localities.

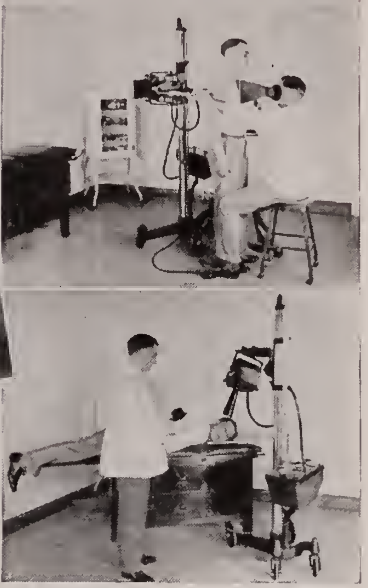
The species of bacteria capable of producing disease are few in number. When present they come from some previous human case of the disease and are never present in water except when freshly polluted with human sewage. Typhoid and dysentery are the only diseases that in this country may be contracted from water. The bacteria causing typhoid and dysentery cannot be detected in water even when present by laboratory methods. We can only, by finding of evidence

(Continued on Page 41)

WHAT OIL-IMMERSED X-RAY APPARATUS HAS CONTRIBUTED TO OFFICE PRACTICE

Model "D" Mobile — compact, conserves floor space, and can be operated in any part of the building by plugging in to the nearest electric service outlet.

Model "DRF" in which the "D" unit is incorporated in a combination radiographic-fluoroscopic table.



Fluoroscopic and radiographic applications of the Mobile "D", showing how the office examination couch can be utilized to advantage.

● The principle of G-E shock proof x-ray apparatus differs radically from all other principles ever applied to x-ray design, in that the entire high voltage system, including the x-ray tube itself, is immersed in oil.

So successful has this type of apparatus proved itself over a period of twelve years, that today finds the same principle applied to G-E x-ray apparatus of capacities as high as 300,000 volts. It has made operation of diagnostic x-ray equipment 100% electrically safe, unaffected by atmospheric conditions, comparatively simple to operate, and convenient to apply. Thus a physician may consider the use of such a diagnostic x-ray unit in his office as thoroughly practicable.

The "D" Series of G-E shock proof x-ray units is popular not only among general practitioners but also in some of the specialty practices, where the range of diagnostic service here provided finds wide adaptability. For example, a radiograph of the average size pelvis is obtained with a one-second exposure, using the Potter-Bucky diaphragm at 30-inch distance; exposure values of other parts of the body as short as ⅛ second. The quality of the resulting radiographs leaves nothing to be desired.

If you have been foregoing the advantages of x-ray diagnosis in your practice in the belief that it involves electrical hazards and other complications in application, the possibilities offered you in the G-E Model "D" series will prove a revelation. We'll be glad to send you descriptive literature without obligation—on receipt of the coupon below:

You may send me your catalog on the G-E Model "D" Series Diagnostic X-Ray Units, provided no obligation is implied. A5

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GENERAL ELECTRIC
X-RAY CORPORATION
2012 JACKSON BLVD. CHICAGO, ILLINOIS

Pneumonia Typing is Simple!

DIAGNOSIS—pneumonia! Pneumococcus pneumonia? Is serum therapy indicated? That depends on the type of the causative pneumococcus.

The physician calls for Rapid Typing sera *Lederle,* Types I and II, the types for which "Council-Accepted" therapeutic sera are available. Microscopic examination of a fleck of the patient's sputum mixed with the required amount of specific typing sera, reveals typical changes in the capsule—Neufeld reaction—in the mixture that identifies the type. These changes consist of a swelling of the capsule with a sharp definition of outline.

All in a few minutes! And therapeutic serum administration may be begun at once. Pictures of the significant capsular swelling are in the direction sheets in the *Lederle* packages. (If no such capsules are found, the efforts to identify the type can be carried further. *Lederle* has Typing sera for 29 types of pneumonia but full use of the series is usually regarded as requiring special technical training.)

Early administration is essential to secure the radical reductions of average mortality obtainable with serum therapy.

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK, N. Y.

TYPE II
DIAGNOSTIC
ANTIPNEUMOCOCCUS SERUM (RABBIT)
Lederle
ANTIPNEUMOCOCCUS SERUM
Type II (RABBIT)

packages:

Rabbit Typing Sera *Lederle* (Neufeld Reaction) Types I to XXIX.

Anti-Pneumococcic Serum *Lederle*, Bivalent, Type I and II, or Type I or Type II—10,000 and 20,000 Units.

SAN FRANCISCO: 450 Sutter Street
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"Ciba"

INDICATIONS: Acute Infectious Diseases Chronic Myocarditis Gas or Drug Poisoning . Anesthesia Shock, etc.

The Plimsoll Mark on the hull of a vessel indicates her maximum "load-line"

CORAMINE

A SHIP MUST NOT BE LADEN beyond its "LOAD-LINE"

When capacity and burden are nicely adjusted, a vessel makes good headway. When the cardio-respiratory system needs such adjustment, physicians have found that Coramine, "Ciba", gives adequate "load-line" security.

Wide range between effective and toxic dose; prompt and sustained relief from circulatory or respiratory depression; cardiac support and vasomotor stimulation during and after critical periods of excessive demand . . . these summarize the usefulness of Coramine, "Ciba" . . . Literature upon request.

CIBA COMPANY, INC.
NEW YORK • NEW YORK

(Continued from Page 38)

of sewage pollution, say that if cases of these diseases exist in the vicinity, the water may carry the germs. The laboratory test, therefore, shows only sewage pollution and not specific disease germs.

Since we cannot distinguish between pollution of human and of animal origin, and since contamination from animal sources is not capable of producing disease, an investigation of the source of the water with respect to the possibilities of human contamination is usually more important than the laboratory test. It is for this reason that the State Laboratory discourages the sending in of samples of water from private sources.

Anyone who thinks he has reason to suspect the safety of a well or spring should make an investigation of the surroundings. If there is no privy or cesspool within seventy-five feet of a well, pollution is practically impossible and no laboratory test is needed to establish the safety of the water. If drainage from animals can reach the water, the matter is for aesthetic consideration only. Disease cannot result. The same may be said for dead animals in waters. It is not an appetizing thought to have one's drinking water so polluted, but disease is not caused thereby. A well on a farm even with a privy within ten feet can be polluted only by the individuals living on the farm. Therefore, if a case of typhoid fever appears on a farm, it is manifest that the well is not to blame, for the reason that the well cannot be contaminated with typhoid until either a typhoid case or a carrier appears in the immediate vicinity. The first case of typhoid in the family must, therefore, have received the infection from some other source.

In conclusion, then, when the water is under suspicion, proceed as follows:

If the source is a public water supply, consult your local health officer.

If the source is a spring or a well removed a safe distance from the possibility of human contamination, dismiss the matter from your mind.

If the source is a well on your premises, look to the location of the well with respect to privies, cesspools, and barns. If too close, move one or the other. Protect a well from surface drainage.

If the source is a well and is possibly subject to sewage contamination from various sources outside the family, write a letter to the Bureau of Laboratories, California State Department of Public Health, Berkeley, giving full information regarding surroundings and reasons for suspecting the water. As a last resort, and in particular cases, a special mailing container for samples will be sent.

Federal Food and Drug Administration. — Recent seizures are reported as follows: substandard canned foods not labeled in the prescribed manner, one lot of peaches, two of peas, and three of tomatoes; honey adulterated with invert sugar and also short weight, 430 shipping cases; 1,800 packages of short-weight wafers, "Melba" toast, toast-crumbs, and whole-wheat toast shipped by a manufacturer in New York; one lot of slack-filled canned spinach bearing no net-weight statement on the label; five assorted jams and jellies (fifty cases in all) deficient in fruit and containing added pectin; 750 packages of a shortening put out by a Los Angeles concern which labeled the article so as to imply it was made of vegetable oils, when in fact it contained fish oil; 13,000 packages of a jelly powder not labeled to show its imitation character; one lot of canned soaked dry peas carrying on the label a design of fresh green peas; 600 cases of beer containing materially less alcohol than the label claimed; seventy-four bottles of California wine masquerading as an imported article; 650 cases of whisky labeled "U. S. P.,"

(Continued on Page 44)

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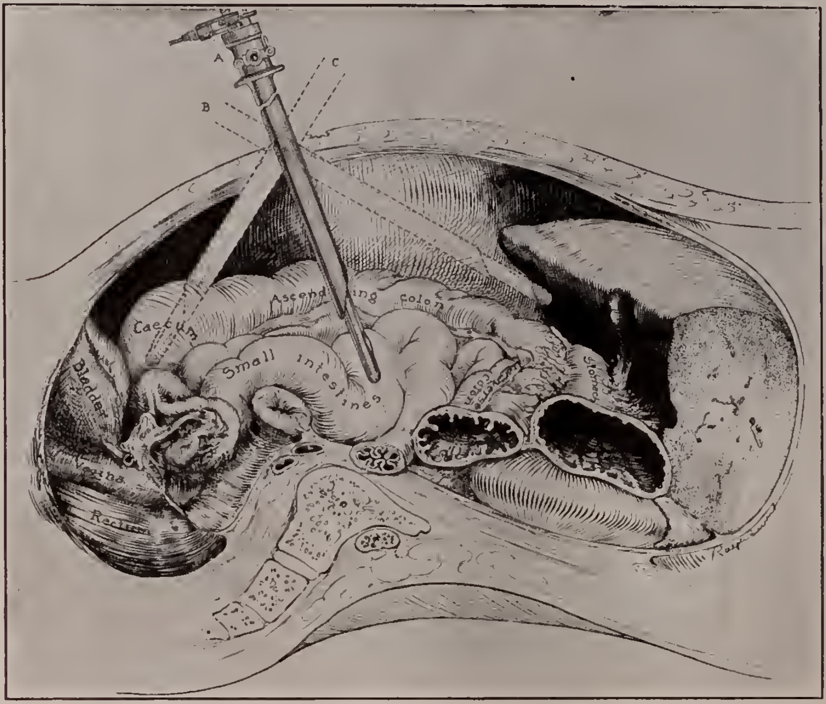

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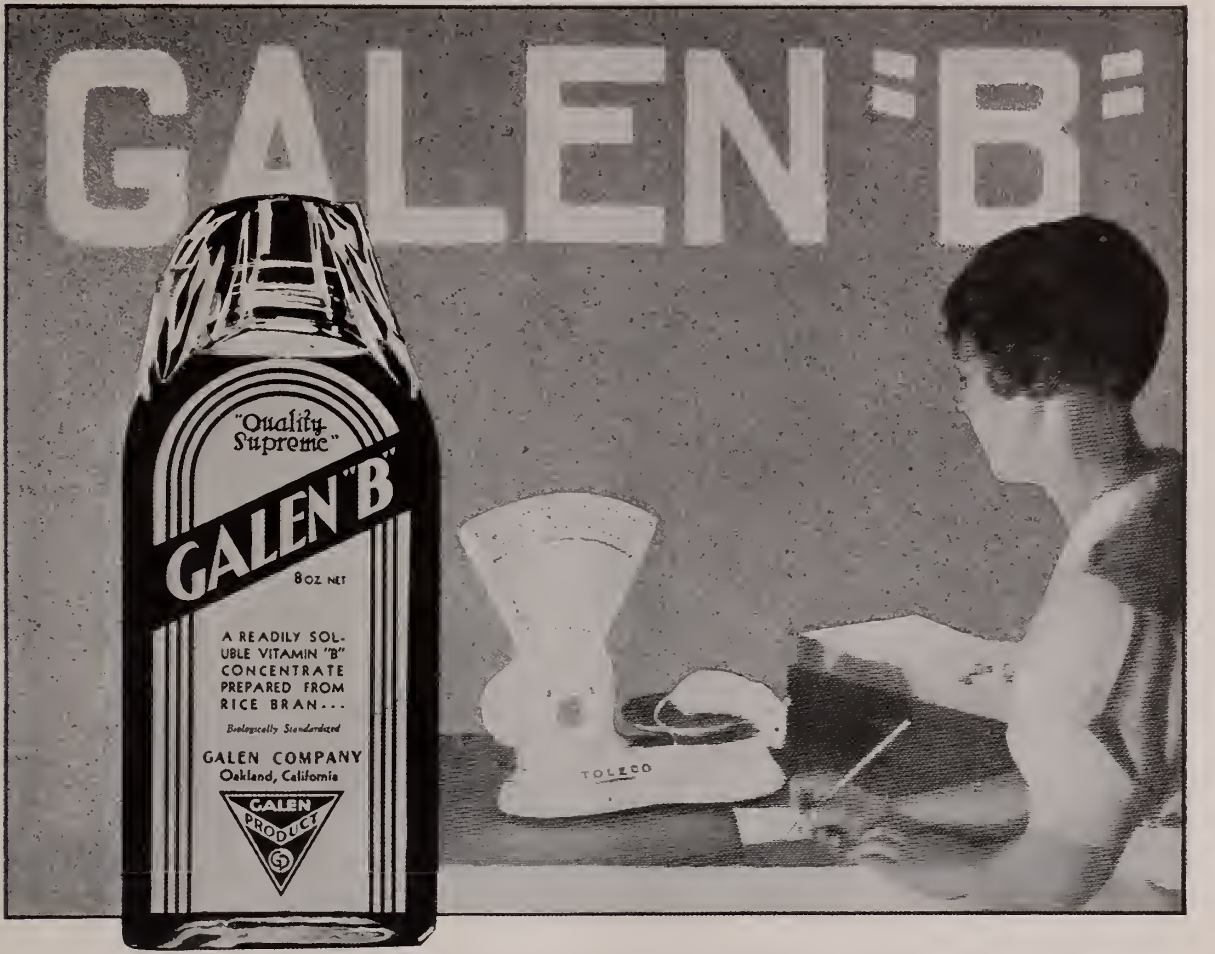
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(Continued from Page 41)

but not conforming to the requirements of the United States Pharmacopoeia; one gallon of tincture of aconite below the U. S. P. standard of strength; and an "ephedrin compound nasal ointment" containing only one-third as much ephedrin hydrochlorid as represented, and entirely lacking in benzocain, also claimed on the label.

Patent medicines seized during the same period because of false and fraudulent medicinal claims were: "BP Prescription," composed of potassium iodid, a laxative, plant extractives, alcohol, sugar and water, for ailments arising from impurities of the blood; "Elk Brand White Pine and Tar Compound," a cough syrup containing over 12 per cent alcohol when only 5 per cent was declared on the label, for coughs and bronchitis; "Dr. Graybill's Prescription No. 1313," a cinchophen preparation bearing no notice as to the dangerous nature of cinchophen, for rheumatism, sciatica, neuralgia, lumbago, sore muscles, neuritis, arthritis, gout, and the elimination of acid poisons and uric acid; "Kalis' Laxative Capsules,' consisting of two grains of acetanilid per capsule, with asafetida, a laxative, camphor and magnesium and iron compounds, for grippe and influenza; "Dr. Sumner's Lung Salve," a petrolatum containing eucalyptus oil, for croup, pneumonia, and throat and lung diseases; "Sylvester Brand Haarlem Oil," a mixture of turpentine oil and a sulphonated fatty oil, for purifying the blood, stimulating the stomach, for scurvy, inflammation of the eyes, ulcers, sores, boils and abscesses; "Vegetrate," composed of rice bran, senna, spices, dried green leafy vegetables, kelp (seaweed), calcium carbonate and dried cranberries, and falsely labeled as "made from fresh raw vegetables and fruits," for hyperacidity, diabetes, hay fever, asthma, and hypertension; "Vegi-Lax," a mixture of bran and dried plant materials selling at $2 a pound, each pound to be used in the preparation of two hundred loaves of a so-called "laxative health bread," which extension of laxative effect, the Government alleged, was beyond the capabilities of the article; "Wood's Famous Specific Remedy," consisting of one-third alcohol and the remainder a solution of atropin, strychnin and other plant extracts in water and ammonia, for colic, coughs, colds, distemper, pneumonia, founder, milk fever and other ailments of dogs, cattle, and horses; and three large lots of miscellaneous antiquated salvaged drugs shipped by firms in Indianapolis and Chicago, and carrying claims of benefit in such serious conditions as asthma, influenza, St. Vitus' dance, tuberculosis, rheumatism, whooping-cough, gout, and grippe.

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Firewalking.—A demonstration of firewalking, which is still practiced by natives of India at religious ceremonies, was given at Carshalton (near London) in the presence of members of the University of London Council for Psychical Research and some well-known physicians. The firewalker was a young Indian, Kuda

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Bux, a Kashmiri Mohammedan, thirty years of age, and weighing 8½ stone (54 kilograms). He said that he first practiced firewalking at the age of fourteen and that the fire did not harm him because of his faith. The fire was contained in two trenches 12 feet long, 6 feet wide, and 8 inches deep. The materials used in preparing the fire included seven tons of oak logs, a ton of firewood, a load of forest-burnt charcoal, and ten gallons of paraffin. When the demonstration was given, the fire trenches had been burning for eight hours, and the charcoal, which had been placed on the top, was fanned by a high wind to an intense heat, which was measured by a thermometer and found to be 800 F. on the surface. Bare-footed, Kuda Bux walked twice along these fire trenches, his feet making contact with the burning embers for some five seconds each time. After both walks his feet were examined by Professor Pannet, director of the surgical unit at St. Mary's Hospital, who found no scorching or other trace of injury. Under the arch of the right foot he previously placed a piece of courtplaster, which was not even scorched. The temperature of the feet immediately after passing over the fire was found to be the same as before starting. Kuda Bux declared that he was not conscious of the heat as he walked over the fire, although he appeared to be as susceptible to the heat as other persons when standing near it. Professor Pannet said that there was no unusual toughness or thickening of the soles of the feet. Kuda Bux was invited to do the firewalk a third time, the full length of both trenches, but he asked to be excused. He appeared to be disturbed by the scientific tests and apparatus and the critical curiosity of the audience. His explanation was that "the faith" had gone out of him. Attempts to firewalk were then made by two young men, but after two steps on the embers they jumped off with their feet blistered. One was the editor of St. Bartholomew's Hospital Journal. A physician present, who had seen the ceremony of firewalking in India, said that the test was made under unusually severe conditions, which would have deterred most firewalkers. The trench was shallower than was customary and, with the high wind increasing combustion and blowing away the ash, the heat was more intense and transmitted without any insulation. Though Kuda Bux boldly did the walk twice, he eventually seemed to realize that the conditions were too severe for him to do the firewalking properly. There was no question of any fake about what he did do. The circumstance of the performance rendered this impossible. But it is unsatisfactory that we are left with no explanation of the phenomenon within the sphere of physics or of physiology. Only that of "faith," given by Kuda Bux himself, is forthcoming. Perhaps something on the subject will be published by Professor Pannet or by other medical witnesses present.—*Journal of the American Medical Association.*

Ten Health Commandments

1. Help yourself to health. Form habits that will fight for you, not against you.
2. Do not expect to have good health without effort. Health must be earned.
3. Adopt the policy that an ounce of prevention is worth a pound of cure.
4. Make food your servant, not your master. Eat for strength.
5. Breathe deeply, for air is life's first requisite and nature's best tonic.
6. Exercise for health, not for strength. Exercise sends clean blood to the brain.
7. Seek sunshine, for sunshine and disease are always enemies.
8. Water—use plentifully daily; warm for cleanliness, cold for tonic.
9. Keep a clear conscience, for true rest is mental as well as physical.
10. Work planfully, read much, and play often. Play keeps old age at bay.

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Paralysis Fund to University School.—The Hooper Foundation of the University of California has received $5,000 from the committee in charge of distribution of the funds from President Roosevelt's Birthday Balls, for the purpose of continuing studies in the cause and treatment of infantile paralysis.

The work, which is general in its nature, is being carried on under the direction of Miss B. F. Howitt, associate in research medicine.

Distribution of the fund this year was made to a number of schools, colleges and other institutions engaged in infantile paralysis research and treatment. The University's interest in this work centers around a pool in the University Hospital in San Francisco, fashioned after the famous Warm Springs pool in Georgia, and in research and treatment work in other departments of the University Medical School.

"If we take the number of babies conceived in the womb of the women of this nation (Great Britain) who might be born, we have 938,000. The number that succeeds in getting born is about 800,000. This is not a good beginning. It means that 138,000 have not sufficient vitality to get themselves born; it also means that the mothers were not properly fed and properly instructed. Of the 800,000 who do manage to enter the world, 100,000 die before they are one year old. This means dirty milk or no milk at all—ignorance, bad food, or poor living conditions. We drop 100,000 before the age of fifteen, just before they are becoming industrial producers and available for military service, and of the remainder who do grow up, we find that another 100,000 have to be rejected for military service because they are unfit. That is 57 per cent destroyed in peace."—George Bernard Shaw.

Do not spend your days waiting for an angel to deliver realized hopes at your door. Go out and toil for them. There are few forms of hard work more wearying than waiting.

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In the September, 1927, issue of California and Western Medicine, page 398, appeared an article relating to the "collection of fees." Following this publication so many orders were received by us for printing the series of gum stickers and notices, we decided to print and stock the series in large quantities.

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Karl L. Schaupp (Chairman)	**San Francisco**	1935

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Fred B. Clarke (Chairman)	Long Beach	1938

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Communications for the Public Relations Department should be addressed to the Director, Frederick C. Warnshuis, M. D., Room 2008, 450 Sutter Street, San Francisco.

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(Roster lists continued on advertising page 4)

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Secretary, E. F. Kehr, Drawer DD, Carmel.

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Secretary, A. E. Varden, 575 Fifth Street, San Bernardino.

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President, Benjamin F. Eager, 711 Medico-Dental Building, 233 A Street, San Diego.
Secretary, Winston C. Crabtree, 14th Floor, Medico-Dental Building, 233 A Street, San Diego.

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Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.

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Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.

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Secretary, F. W. Yocum, Box 286, San Luis Obispo.

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Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.

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Secretary, Cletus S. Sullivan, 815 Bank of America Building, San Jose.
Assistant Secretary, Leslie B. Magoon, Medico-Dental Building, San Jose.

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Stanislaus County Medical Society

President, Hans Hartman, 1005 L Street, Modesto.
Secretary, E. F. Hagedorn, Box 834, Modesto.

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President, James L. Faulkner, 730 Main St., Red Bluff.
Secretary, F. J. Bailey, Red Bluff.

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President, J. C. McClure, Lindsay.
Secretary, Karl F. Weiss, Security First National Bank Building, Visalia.

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President, Fred A. Shore, 704 E. Santa Clara Street, Ventura.
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.

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Secretary, Fred W. Didier, Wheatland.

(Roster lists continued on advertising page 6)

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and its relation to the medical profession

1 Since its founding, over 60 years ago, The Maltine Company has adhered to the most rigid ethical practices. Our product is advertised solely to the medical profession.

2 Our product is scientifically made and standardized.

3 Our modern laboratories are continually studying the biological reactions to administrations of MALTINE WITH COD LIVER OIL, in order that the achieved standard of quality may be maintained.

4 Constantly conducted animal tests indicate that the vitamin A efficacy of cod liver oil is enhanced *twofold* when emulsified in MALTINE, as in MALTINE WITH COD LIVER OIL.

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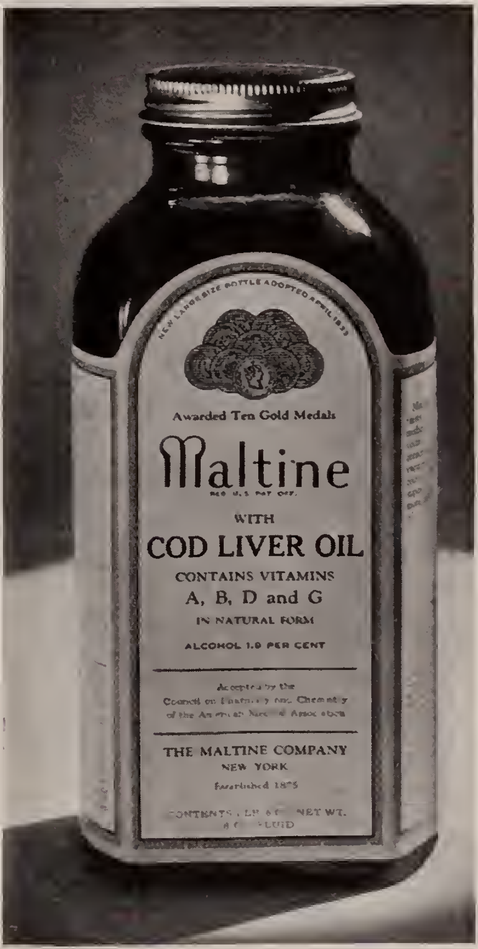

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Maltine

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Junius B. Harris, Sacramento	(1935-1936)	John Hunt Shephard, San Jose
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Elhridge Best, San Francisco	1936-1937	Robert S. Stone, San Francisco
Lyell C. Kinney, San Diego	1936-1937	Harry H. Wilson, Los Angeles
Fred B. Clarke, Long Beach	1936-1937	A. J. Scott, Los Angeles

Miscellaneous California Medical Organizations

Department of Public Health of the State of California

San Francisco—State Office Building, McAllister and Larkin Streets. UNderhill 8700.

Sacramento—State Office Building, Tenth and L Streets. CApital 2800.

Los Angeles—State Office Building, 217 West First Street. MAdison 1281.

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Director, Walter M. Dickie, State Building, San Francisco.

California Northern District Medical Society

President—Percy B. Gallegos, 242 North Sutter Street, Stockton.

Secretary—Dave F. Dozier, 926 J Street, Sacramento.

Board of Medical Examiners of the State of California

San Francisco, Rm. 512, 450 McAllister St.

Los Angeles, 812 Associated Realty Building
510 West Sixth Street

Sacramento, 420 State Office Building.

President, William R. Molony, Sr., Los Angeles.

Secretary, C. B. Pinkham, Room 512, 450 McAllister Street, San Francisco.

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President, Franklin R. Nuzum, Cottage Hospital, Santa Barbara.

Secretary, Robert W. Langley, 1002 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

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Executive Secretary, Ben H. Read. San Francisco Office, 450 Sutter Street. Los Angeles Office, Room 563, 1151 South Broadway.

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President, Reginald Knight Smith, 490 Post Street, San Francisco.

Chairman, Executive Committee, Walter B. Coffey, 65 Market Street, San Francisco.

Treasurer, John Gallwey, 1195 Bush Street, San Francisco.

Secretary, Celestine J. Sullivan, 490 Post Street, San Francisco.

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A. J. HOOD, Elko	Alternate

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The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

ALUM ROCK SANATORIUM
For Treatment of Tuberculosis
San Jose, California

CALIFORNIA SANITARIUM
For Treatment of Tuberculosis
Belmont, California

CANYON SANATORIUM
For the Treatment of Tuberculosis
Redwood City, California

COLFAX SCHOOL FOR THE TUBERCULOUS
For the Treatment of Tuberculosis
Colfax, California

COMPTON SANATORIUM AND LAS CAMPANAS HOSPITAL, COMPTON
Neuropsychiatric and General
Compton, California

FRANKLIN HOSPITAL
Limited General Hospital
Fourteenth and Noe Streets, San Francisco

FRENCH HOSPITAL
General Hospital
Geary at Fifth Avenue, San Francisco

GREENS' EYE HOSPITAL
Consultation, Diagnosis and Treatment of Diseases of the Eye
Bush and Octavia Streets, San Francisco

LAS ENCINAS SANITARIUM
Nervous and General Diseases
Las Encinas, Pasadena, California

LIVERMORE SANITARIUM
Nervous and General Diseases
Livermore, California

OAKS SANITARIUM
For Treatment of Tuberculosis
Los Gatos, California

POTTENGER SANATORIUM AND CLINIC
For the Treatment of Tuberculosis
Monrovia, California

PARK SANITARIUM
Mental and Nervous, Alcoholic and Drug Addictions
1500 Page Street, San Francisco, California

SOUTHERN SIERRAS SANATORIUM
Treatment of Tuberculosis
Banning, California

SAINT FRANCIS HOSPITAL
Limited General Hospital
Bush and Hyde Streets, San Francisco

ST. LUKE'S HOSPITAL
Limited General Hospital
27th and Valencia Streets, San Francisco

ST. MARY'S HOSPITAL
General Hospital
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Modern, reputable stores in

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LOS ANGELES
PASADENA
LONG BEACH
GLENDALE
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Kentucky	2	South Carolina	1
Louisiana	1	Tennessee	1
Maryland	1	Utah	1
Massachusetts	2	Virginia	4
Maine	1	West Virginia	2
Michigan	2	Wisconsin	1
Minnesota	1	Wyoming	1

They are distributed by years as follows:

1916	2	1925	5
1919	1	1926	3
1920	6	1927	6
1921	1	1928	3
1922	4	1929	3
1923	3	1930	7
1924	4	1931	2

Three states recorded two sets of quadruplets in one year: Pennsylvania in 1922, Ohio in 1920, and Virginia in 1927 and again in 1930.

Pennsylvania has recorded births of quadruplets in five different years (1916, 1919, 1920, 1922 (two) and 1926); California (1920, 1922, 1923) and North Carolina (1924, 1925, 1930) in three different years; Alabama (1927, 1929), Indiana (1924, 1925), Kentucky (1922, 1928), Massachusetts (1926, 1928), Michigan (1916, 1930), Mississippi (1924, 1931), Missouri (1928, 1931), Ohio (1920 (two) 1925), Virginia (1927, (two), 1930 (two)), and West Virginia (1925, 1930) in two different years each.

Of the fifty sets, thirty-one had all the children born alive, six had three of them live births, while there were three each with two and one liveborn children, and seven cases in which all four children were stillborn; fifteen sets were made up of males only, while there were only ten sets entirely of females; six sets were composed of three males and one female; eleven sets, two males and two females; and eight sets one male and three females. In the entire fifty sets, 108 were males and ninety-two were females.

Where all the children were living at birth, ten sets were all males; five sets were all females; five sets were two males, two females; four sets, three males, one female; seven sets, one male, three females.

Where all were stillborn, there was one set all females; one set, one male, three females; three sets, two males, two females; and two sets, three males, one female.

"Marmola Silenced."—Under the caption "Marmola Silenced," the magazine *Time* recently printed the following item:

> For thirty years a crafty old Detroiter called Edward D. Hayes, vendor of nostrums, has dodged the United States postoffice, the Federal Trade Commission, Federal courts, Better Business Bureaus. Twenty years ago he slipped, was arrested and fined $5,000 and had his sucker list of 500,000 names destroyed for overshouting "Doctor Robinson's Prescription for Nervous Debility, Lack of Vigor, Failing Memory and Lame Back Brought on by Excesses, Unnatural Drains or the Follies of Youth." Publications like the *Police Gazette* and *Baptist Record* carried his advertising.
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> Doctor Hayes's latest nostrum is Marmola, a tablet containing thyroid substance, which he markets over drugstore patent medicine counters as a cure for obesity. Like all thyroid preparations, Marmola may cause a user to drop dead, or cripple his heart, unless a physician stands by to control the dosage and reduction in weight. Vainly various agencies have tried to stop the sale of Marmola. Last week the Federal Communications Commission tried its hand by threatening to take licenses away from twenty-one radio stations from Rochester to San Francisco, Los Angeles to Miami, if they did not cease broadcasting Marmola advertisements.

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Economy of Dextri-Maltose.—It is interesting to note that a fair average of the length of time an infant receives Dextri-Maltose is five months; that these five months are the most critical of the baby's life; that the difference in cost to the mother between Dextri-Maltose and the very cheapest carbohydrate, at most is only $6 for this entire period—a few cents a day; that, in the end, it costs the mother less to employ regular medical attendance for the baby than to attempt to do her own feeding, which in numerous cases leads to a seriously sick baby, eventually requiring the most costly medical attendance.

Oral Immunization to Colds.—Rockwell and his collaborators immunized a large group of persons orally to the secondary invaders of colds, using a vaccine made up of heterophile antibodies. The 500 patients who took the vaccine came from various walks of life, and the 536 persons used as controls were chosen from the same environment. The average number of colds each patient had annually in the past three years, age, sex, occupation and allergic history were obtained before the vaccine was given. The oral cold vaccine was made from pneumococci and streptococci. Since the desired immunity was a nontype specific heterophile active immunity, a single pneumococcus strain was used. This strain was DR-I, a well-known nonpassaged, and mainly rough, variant from the Neufield Type I pneumococcus. The streptococcus was a hemolytic mouse-virulent laboratory strain. The treatment consisted of the ingestion of one capsule of starch adsorbed vaccine containing one hundred billion pneumococci and one hundred billion streptococci with a half glassful of cold water each morning before breakfast for seven consecutive mornings, after which term one capsule each week was taken throughout the season. Of the 500 treated cases, thirty-eight had a history of continuous colds, while 425 had a history of from one to eight colds annually per person. Among the 536 controls, nine had a history of continuous colds, while 527 had a history of from only one to eight colds annually per person. Among the forty-seven patients who gave a history of continuous colds, the thirty-eight who were given the oral cold vaccine had, for that year, a total of only forty-one colds, thus passing from a stage of continual coryza to an average of 1.08 colds per person, while of the nine persons used as controls, only one reported a less severe type this year. Among those who for the past three years had a history of from one to eight colds annually per person, 462 patients, having a yearly average total during the previous three years of 1,400 colds or 3.03 colds per person annually, while taking the vaccine this year had a total of only 604 colds, or an average of 1.3 colds per person and 1.73 colds less per person, a decrease of 57 per cent. The 527 persons used as controls had a yearly average total, for the past three years, of 1,314 colds, or 2.49 colds per person annually. During the school year 1933-1934 this group had a total of 1,156 colds, or 2.19 colds per person, which is 0.3 cold less per person, or a decrease of 12 per cent. The essential decrease due to the oral cold vaccine is thus 45 per cent. The relationship between the response of the individual to the heterophile antigen and his incidence of colds is given in a separate article.—*Journal of Immunology.*

Fifty Years of Service.—Acclaimed as one of the men who have accomplished much in the promotion of public health and the saving of human lives, as a result of work in biologic science, Dr. H. K. Mulford was honored with a dinner in celebration of his golden pharmaceutical anniversary at the Union League, Philadelphia, on the evening of October 31, 1935, by a group of distinguished scientists, physicians, chemists, pharmacists, and educators. The event was sponsored by the National Drug Company, Charles E. Carr acting as chairman. Dr. Wilmer Krusen, president of the Philadelphia College of Pharmacy and Science, ably served as toastmaster.

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BOOK REVIEWS

List of Books Received

BOOKS RECEIVED

The National Formulary. Sixth edition. National Formulary VI. N. F. VI. Prepared by the Committee on National Formulary by Authority of the American Pharmaceutical Association. Official from June 1, 1936. Cloth. Pp. 556. Washington, D. C.: American Pharmaceutical Association, 1935.

Recent Advances in Cardiology. By Terence East, M. A., D. M., F. R. C. P., Physician, King's College Hospital and Woolwich Memorial Hospital, and Curtis Bain, M. D., D. M., F. R. C. P., Physician, Harrogate General Hospital. Third edition. Cloth. Pp. 350, with fourteen plates and eighty-five text figures. Price, $5 net. Philadelphia: P. Blakiston's Son & Co., Inc., 1936.

Modern Office and General Practice. A Handbook of Practical Medicine. By Deane R. Brengle, M. D. Cloth. Pp. 320. Price, $3.25. Kingsport, Tennessee: Southern Publishers, Inc., 1935.

United States Naval Medical Bulletin. Vol. 34, No. 1, January, 1936. Published quarterly for the information of the Medical Department of the Navy, issued by the Bureau of Medicine and Surgery, Navy Department, Division of Publications, Commander Louis H. Roddis, Medical Corps, U. S. Navy, in charge. Compiled and published under the authority of Naval Appropriation Act for 1935-36, approved June 24, 1935. Paper. Price, 25 cents. Washington: United States Government Printing Office, 1935.

BOOK REVIEWS

Doctors and Juries. The Essentials of Medical Jurisprudence. By Humphreys Springstun. Pp. 155. Philadelphia: P. Blakiston's Son & Co., Inc., 1935. Price, $2.

On commencing practice, the medical man finds himself more or less well prepared to cover those portions of his practice concerning the physician-individual patient relationship. Soon, however, he is faced with problems concerning his duties and responsibilities under the law: the matter of privileged communications; narcotic legislation; malpractice allegations; the relation of medicine to one or another type of insurance. He is called to court as a "fact" or "opinion" witness. He is asked for opinion in matters where pathology or toxicology touch the law. He will have to obtain permission to make postmortem examinations and know the penalties for performing them without proper authority.

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In most communities of the United States the graduating medical man commences practice without any adequate preparation to meet these problems.

It is almost the universal experience of medical men to have their first taste of commission or court, or any form of legal machinery, when they find themselves summoned like a bolt out of the sky into a strange arena for which they are unprepared and in which they find their expected embarrassment warranted or unwarranted. Certainly an earlier understanding of the "law in action" at a time when one is not personally involved is in order.

Lacking an adequate preparation in the medicolegal field during medical school training, it is actually a requirement that the physician include in his library certain books on legal medicine.

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J. C.

(Continued on Next Page)

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BOOK REVIEWS

(Continued from Preceding Page)

Diseases of the Nose and Throat for Practitioners and Students. By Charles J. Imperatori and Herman J. Burman. Pp. 723. Illustrated. Philadelphia: J. B. Lippincott Company, 1935. Price, $7.

This new textbook is admirably written, as its title indicates, for practitioners and students.

The text is remarkably well organized and the index is excellent. The discussions on pathology are the outstanding feature of this work. There is a great deal of repetition in the first five chapters which overemphasize elementary procedure and take up too much space. The technique of simple procedures is painstakingly described, whereas major surgical procedures are quite sketchy. The chapter on cocain is timely, as is also the stimulating discussion on the diagnostic value of Roentgen examinations of sinuses by Frederick M. Law. The chapter on physical therapy should be very valuable, as it most concisely and clearly explains the various agents and their actions, namely infra-red rays; ultra-violet rays; diathermy; coagulating, dessicating and cutting currents; the new ultra-short wave; ionization; Roentgen rays and radium. The chapters on endoscopy and diseases requiring it are quite comprehensive.

In keeping with recent progress, more space might have been allotted to discussions on allergy and constitutional diseases affecting the nose and throat, including endocrine dysfunctions and metabolic disorders associated with vitamin deficiency. The lack of references depreciate from the value of this comprehensive and well organized textbook.

S. V. C.

A Textbook of Clinical Neurology With an Introduction to the History of Neurology. By Israel S. Wechsler. Third edition. Pp. 826. Illustrated. Philadelphia and London: W. B. Saunders Company, 1935. Price, $7.

This excellent textbook with revisions bringing it up to date will merit in the future the popularity which it has enjoyed in the past.

The book is admirably designed for students and practitioners by reason of its compactness. The use of italics

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is particularly helpful. At the chapter ends are well selected references for future reading.

There has been added an introduction to the history of neurology of some forty pages which starts with the Edwin Smith papyrus 2500 B. C. and ends with June, 1935. It consists chiefly of a list of names, some of which get fairly extended notice, while others are merely mentioned. It is a very helpful catalog.

The sixty or more pages on the neuroses necessarily are inadequate. One cannot say enough about neuroses in sixty pages. The beginner will not get enough out of it to be of much value and the more advanced will be even less satisfied. The tone is strictly Freudian with very little tolerance for variance in the slightest from the master.

E. W. T.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 144)

profession has, likewise, occasionally furnished articles on the care of the mouth, or on oral surgery. It is unfortunate that the dental and medical professions do not come into closer scientific contact. . . .

From an article on "The Value of Rectal Examinations" by Alfred J. Zobel, M.D., San Francisco.

A very brief description of the anatomical relations of the rectum and sigmoid colon will suffice to illustrate how functional or organic disturbance in neighboring parts might cause symptoms to arise in these portions of the large bowel, and vice versa; and at the same time demonstrate the necessity for, and the value of, rectal examinations. . . .

From an article on "A Method for the Determination of the Pus in Diseases of the Accessory Cavities of the Nose" by Henry Horn, M.D., San Francisco.

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(Continued on Next Page

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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

to pressure and an examination of the nose reveals thick yellow pus in the region of the middle turbinate, we can say with a fair degree of certainty that we are dealing with an acute inflammation of the ethmoid cells and the frontal sinus. . . .

From an article on "Some Points on the Etiology and Treatment of Enuresis" by E. C. Fleischner, M. D., San Francisco.

No one has seen many children suffering from enuresis without asking the question, "Why are the results of treatment so preëminently unsatisfactory?" The answer to this question is that enuresis is essentially not a clinical entity, but a clinical symptom. No one would endeavor to treat headache without attempting to discover its cause; likewise, no one would endeavor to remove abdominal pain without locating the responsible viscus. On the contrary, it is lamentable to note that belladonna or the bromides are usually prescribed in the treatment of enuresis without thought being given to the etiological factor. . . .

From an article on "Criminal Abortion" by J. Henry Barbat, M. D., San Francisco.

The desire to prevent conception or to get rid of the products of conception, is as old as mankind. I do not expect to be able to change the condition of affairs as it exists at present, but I do believe that a proper exposure of the methods of the criminal abortionists, and the adoption of laws to prevent them from flaunting their dastardly vocation in the face of the public, would result in saving the lives of a large number of innocent victims, and in preserving the chastity of numerous girls. . . .

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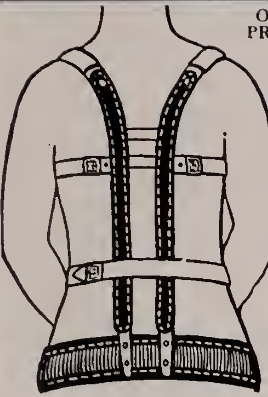

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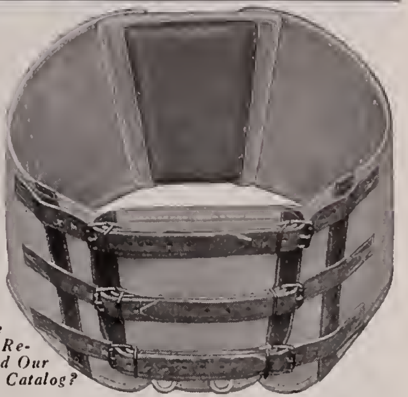

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From an article on "Report of Ophthalmological Cases" by F. A. Hamlin, M. D., San Francisco.

. . . Among the causes of squint may be mentioned: (1) Disturbance of relation between accommodation and convergence by errors of refraction. (2) Disparity in length, thickness, or tension of opposing muscles. (3) Size and shape of eyeball and orbit. (4) Influence of angle gamma. (5) Amblyopia of one eye.

Treatment of convergent concomitant squint may be briefly outlined under three headings: (1) Spectacles. (2) Orthoptic training, *i. e.*, the child must see double or be trained to see double and then taught to fuse the double images (this necessitates much time, care, and detail). (3) Operative methods: (*a*) Tenotomy of the internal rectus, or (*b*) advancement of the external rectus, or (*c*) both. . . .

From an article on "The Value of Rest in the Treatment of Pulmonary Tuberculosis" by Robert A. Peers, M. D., Colfax.

The marked changes that have been made during the past two decades in the treatment of tuberculosis is in no way better illustrated than in the shifting of position in the attitude of the members of the medical profession regarding the value of rest in this disease. We can all remember the period when, with the knowledge of the advantages of outdoor living, came the advice to tuberculous patients to exercise. . . .

From Proceedings, Pacific Coast Association of Railway Surgeons:

From an Article on "Crusade Against the Anophele Mosquito" by T. B. Reardan, M. D., Oroville.—When Laveran, in 1882, discovered the parasites in the blood of those ill with malarial fevers, an opening wedge was driven, which has finally made clear the way for the control, and one might say, the elimination of such fevers in any given locality. Patrick Manson found the mosquito to be the host of the parasite, and Sir Ronald Ross that it inoculated the human through its bite. . . .

✓ ✓ ✓

From an Article on "Hookworm Disease Among Mexican Track Laborers" by John W. Colbert, Albuquerque, New Mexico. — Our "late unpleasantness with Spain" brought the subject of hookworm disease to the attention of the medical profession in this country—first, through the extensive work of Ashford and King in Porto Rico, and then the investigations of Stiles demonstrated the presence of the disease in our own Southern States. I believe it was Herbert Gunn of this city who first demonstrated its presence in California. . . .

From San Francisco County Medical Society Proceedings:

"President's Address" by Langley Porter, M. D., San Francisco.— . . . A committee headed by one, who through many years of active life has devoted much time and thought to the welfare of your Society, Dr. C. G. Kenyon, has been working on a plan for housing the Society in a fitting manner. This plan will be presented to you, and even if it should fail to receive your endorsement, the labors of Doctor Kenyon and his committee place the Society under great obligation. . . .

(Continued on Page 17)

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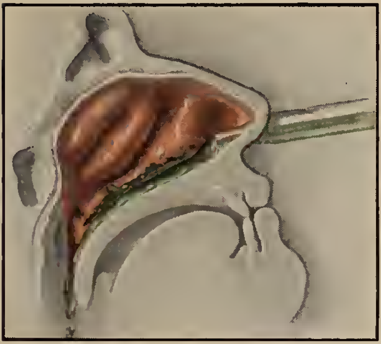

Fig. 1. The distribution of a liquid inhalant when applied by a dropper.

The solution does not reach beyond the lower border of the inferior turbinate, the bulk of the liquid gravitating to the pharynx. The spaces between the turbinates, where the congestion is greatest, have not been reached.

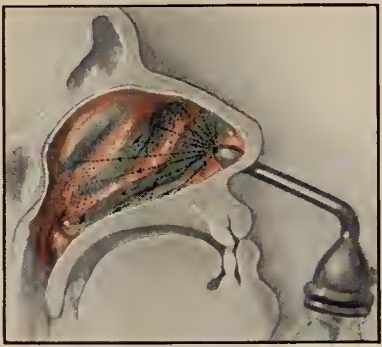

Fig. 2. The distribution of a liquid inhalant when applied by a spray or atomizer.

The inferior turbinate intercepts the bulk of the liquid intended for the middle and upper meati, sites of greatest congestion. The excess liquid is deflected to the roof of the hard palate, whence it reaches the pharynx.

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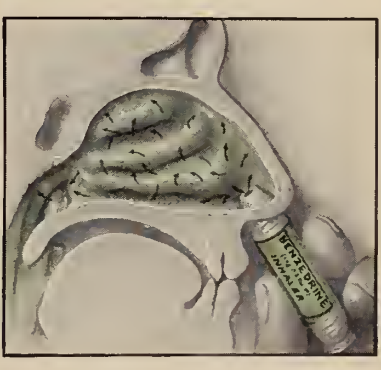

Fig. 3. The distribution of a vapor when sniffed up the nose by means of an inhaler.

The vapor diffuses throughout the entire upper respiratory tract, reaching and reducing congestion wherever it exists.

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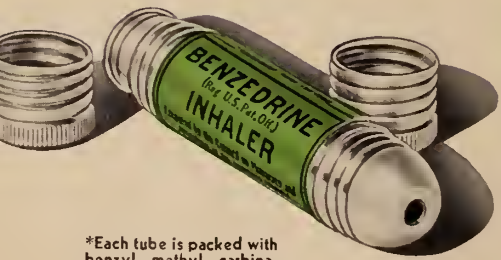

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VOLATILE VASOCONSTRICTOR

TWENTY-FIVE YEARS AGO

(Continued from Page 15)

Now in San Francisco we have what is certainly the seventh, probably the sixth, largest collection of medical literature in America, which has behind it a fund of some $80,000 or $100,000, and what is more important still, it has behind it the library organization of Stanford University. . . . The Stanford trustees, convinced that the best interests of medicine are to be served by centering the intellectual interests of medicine in one building, are prepared to supply to the county society, shelf room for this Society's library and to provide offices and assembly rooms for the Society's meetings at a cost to the Society of about what the rental of such inadequate quarters as these we now occupy would be. . . .

In closing, I would quote to you from the first presidential address made to the Society by Doctor Whitney, its first president, in 1868:

"A few weeks ago a gentleman whose qualifications as a regular practitioner no one can question, invited to his residence several members of the profession to consider the propriety of organizing a medical society. Those who responded to that invitation represented the different nationalities of which the profession is here composed. It was unanimously resolved that steps be taken to bring together as large a number of those who are known or believed to belong to the regular profession here, as possible for the purpose of forming a society."

After two or three preliminary meetings, with increased numbers, it was decided to send a notification to every practitioner in the city believed to be a regular member of the profession. This brought together a sufficient number to divest the meeting of anything like partisanship, and then forthwith proceeded to organize under the name of the "San Francisco Medical Society" by adopting a constitution and by-laws. The code of ethics framed, adopted and recommended by the American Medical Association constitutes the basis of our organization, and to this our constitution and by-laws conform. . . .

Secretary's Report.—Mr. President and Members of the Society: As secretary I beg leave to submit the following report for the year 1910, *i. e.,* from the twenty-second day of January, when I took charge of this office, to December 10, inclusive.

Number of members in Society, January 22, 1910	482
Admitted	43
Resigned	9
Transferred to other county societies	6
Died	7
Dropped for nonpayment of dues	27
Number of members in Society, December 10, 1910	476

Opposition to Our Defense Plan.—The agents of at least one commercial company, we are told on good authority, are spreading the startling information throughout the State that there are so many malpractice suits now in actual progress that to pay for their defense would take several times the amount of money the California State Medical Society will raise. If this were true it would mean the premature end of our defense plan, but these agents tell only part of the truth. . . .

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BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 144)

"David George Allen, believed by investigators to have conducted an illegal operation clinic in a building on North Euclid Avenue, yesterday was charged with murder in a complaint issued by Deputy District Attorney John W. Loucks. He was accused of responsibility for the death of Mrs. Evelyn Scurlock, 131½ Raymond Street, Alhambra, last November 20, from an illegal operation. Allen is said to have performed on her November 16. George Clair Scurlock, husband of the dead woman, was charged jointly with murder. He has not been apprehended. . . ." (Pasadena *Post,* December 5, 1935.)

"Dr. R. B. Smith, 83-year-old physician, yesterday pleaded guilty in federal court to selling narcotics through the mails. His case was referred to Probation Officer Charles Upton, who will report Saturday. G. B. Hjelm, Assistant United States Attorney, has recommended probation. . . ." (Sacramento *Union,* December 17, 1935.)

"A new racket, reportedly aimed at San Francisco's thirteen midwives, was revealed by public health officers here yesterday. Inspectors of the Bunco Detail began an investigation aimed at the arrest of two men representing themselves as officials of the health department, who assertedly demanded a $5 license fee from one of the midwives. When she paid the $5, she told police, she found the receipt given her was an order for $5 worth of advertising in minor local newspapers. No one is authorized to collect any fees from midwives in this city, Dr. J. C. Geiger said." (San Francisco *Examiner,* December 18, 1935.)

"Charged with issuing unlawful narcotic prescriptions to addicts, Dr. William Tatum, Riverside physician, was arrested yesterday by federal narcotic agents. Agents asserted he had issued a large number of prescriptions, charging a $5 fee in each case. Three asserted addicts were taken into custody." (Los Angeles *Illustrated Daily News,* November 28, 1935.)

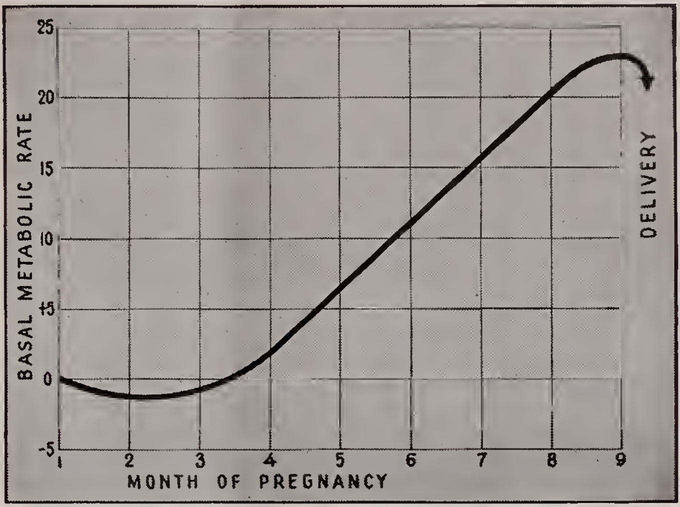
"Dr. Hugo Foss, 76-year-old physician of 257 South Spring Street, went on trial before a jury today in Municipal Judge Falconer's Court, charged with fourteen counts of illegally issuing prescriptions to narcotic addicts. Deputy City Attorney Franklin Potter was prepared to present several witnesses in an attempt to prove that some of Doctor Foss' patients allegedly received as many as one hundred prescriptions in a year for morphin." (Los Angeles *Herald-Express,* December 19, 1935.)

Eyesight swindlers are again active in California. On January 2, 1936, Sheriff Rayburn of Riverside sent out an all-point bulletin, announcing that two swindlers using the time-worn "radium water" drop racket had swindled an elderly individual in his vicinity out of $75. Swindler No. 1 used the name A. C. Meuller, described as age 45 to 50, height 6 feet, weight 185, dark hair and eyes. Swindler No. 2 used the name John Doe Reed, age 50, height 5 feet 9 inches, weight 150, build slim, dark hair and eyes, wears glasses, has thin face and hollow cheeks.

Reports relate that J. E. S. C. Morandi on December 6, 1935, pleaded guilty to a violation of the Medical Practice Act in the justice court of San Diego and was sentenced to pay a fine of $100 or serve twenty-five days in jail on each count. He was committed to jail on the first count,

(Continued on Page 20)

PROTECTING THE EXPECTANT MOTHER



NORMAL PREGNANCY has its disturbances. During the first half of pregnancy the woman's metabolic rate is not changed. After the fourth month it gradually increases to 23% above her norm. Caloric increase in the diet is thus necessary after the fourth month.

But vomiting of pregnancy interferes! The condition is looked upon today as a disturbance in carbohydrate metabolism. Upon this assumption is based the present-day treatment by carbohydrate diet. The early introduction of small carbohydrate meals at 3 hour intervals helps prevent this disturbance. Karo added to foods and fluids prevents glycogen depletion and ketosis.

The enlarging of the uterus further produces reflex vomiting and unless carbohydrate is taken throughout the day to maintain the blood sugar at a high level, ketosis results. This aggravates the vomiting, frequently beyond control, because of the inability of the damaged liver in pregnancy to resist ketosis. Karo helps provide the expectant mother with readily assimilated sugars preventive of ketosis. Karo consists of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor), not readily fermentable, rapidly absorbed and effectively utilized.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 18)

and sentence on the second and third count was suspended. This is the individual referred to in the January "News" as claiming to have been the personal physician of Haille Selassie. It was reported that the Federal Department of Justice records show Morandi was arrested in Des Moines, Iowa, March 31, 1931; in Ashland, Kentucky, February 7, 1934.

"The whole end and object of education," said Aristotle, "is training for the right use of leisure." It is only recently, however, that the full practical import of this declaration has made itself felt. In the first place, the amount of leisure time has been increasing and seems destined to even more rapid increase in the near future. In the second place, urban civilization has disrupted traditional leisure pursuits and the individual's control over his own leisure, thus making necessary community action on the subject.—George A. Lundberg.

The Killing Diseases of Childhood in California.—The Bureau of Epidemiology of the California State Department of Public Health has compiled a tabulation of cases and deaths from communicable diseases in California for a period of five years, according to age groups. The data are valuable because they indicate the present trend of devastation due to communicable diseases, and provide an index which may be useful to health officers, physicians and individuals who are directing intensive efforts toward the prevention of illness and deaths among children. The trend of communicable diseases during the five years 1928-1932 will be discussed in each group that is involved in the study.

Under One Year.—During the five-year period, 1928-1932, inclusive, 10,698 cases of communicable diseases and 2,479 deaths from such diseases were reported among children under one year of age in California. The most prevalent disease among such children and the disease having greatest killing power was whooping cough. Forty-two and one-half per cent of all cases of communicable diseases in infants and 28.28 per cent of all deaths among such infants was due to whooping cough. During this period 4,546 cases of whooping cough in infants, with 701 deaths, were reported.

Measles was the next most prevalent disease among infants. There were 1,941 reported cases (18.14 per cent) with 101 deaths (4.07 per cent).

Chickenpox was next in prevalence, 1,873 cases (17.50 per cent) having been reported, but for this disease there is no mortality rate. Five hundred forty-one deaths (almost 22 per cent of all infant deaths during the five-year period) were reported as due to influenza. There is a possibility that some of such deaths were due to other causes.

Among infants, during the five-year period, 296 cases of tuberculosis in all forms were reported, which represents 2.77 per cent of all communicable disease cases in infants reported during the period. On the other hand, there were 392 deaths from tuberculosis in infants registered, which represents 15.81 per cent of total deaths from communicable diseases in this group. There were 443 cases of venereal diseases in infants reported (4.14 per cent) and 286 deaths from venereal diseases were registered (11.54 per cent of the total). During this five-year period there were 270 cases of diphtheria reported in infants, with fifty-six deaths.

It would appear, then, that whooping cough is of first importance as a killer of children under one year of age in California. If contact with active cases

(Continued on Page 22)

More satisfactory results with *an arsphenamine* plus *a heavy metal*

Adequate arsphenamine therapy, supplemented with a heavy metal preparation, offers the surest means of arresting and curing syphilis. Continuous treatment is important if neuro-recurrences are to be prevented and maximum curative results obtained. This treatment should consist of a sufficient number of doses of the arsenical plus an adequate number of injections of the heavy metal.

Neoarsphenamine and Iodobismitol with Saligenin—two products by Squibb—are of distinct advantage in the treatment of syphilis. Iodobismitol with Saligenin is a propylene glycol solution containing 6% sodium iodobismuthite, 12% sodium iodide and 4% saligenin (a local anesthetic). It provides bismuth in anionic (electro-negative) form.

Iodobismitol with Saligenin is rapidly and completely absorbed and slowly excreted, thus providing a relatively prolonged bismuth effect. Repeated injections are well tolerated in both early and late syphilis.

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An approved clinical pathologist should be a licensed graduate of medicine. He shall have specialized in clinical pathology, bacteriology, pathology, chemistry, and other allied subjects for at least three years, and he should be reasonably familiar with the manifestations of disease in the body. The director of a clinical laboratory shall be on full time or have definite hours of attendance, devoting the major part of his time to this specialty. A clinical laboratory is an institution organized for the practical application of the fundamental sciences by the use of specialized apparatus, equipment and methods, for the purpose of ascertaining the presence, nature, source, and progress of disease in the human body.

The following Clinical Pathologists directing private laboratories in California are approved by the Council on Medical Education and Hospitals of the American Medical Association:

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(Continued from Page 20)

could be prevented this record might be made very much better. The responsibility rests largely upon parents. The health officer's most important duty lies in the instruction of parents in the dangers of this disease and the necessity for providing effective safeguards against its contraction.

Together, measles and whooping cough constitute more than 60 per cent of all cases of communicable diseases reported in infants, and together they are responsible for almost one-third of all deaths that occur in this age group. The tabulation of morbidity and mortality for children under one year of age follows:

Communicable Diseases and Deaths in Children Under One Year, California, 1928-1932

	Cases		*Deaths*	
Disease	*No.*	*Per Cent*	*No.*	*Per Cent*
Measles	1,941	18.14	101	4.07
Chicken pox	1,873	17.51	......	......
Mumps	138	1.29	......	......
Whooping cough	4,546	42.49	701	28.28
Scarlet fever	216	2.02	8	.32
Diphtheria	270	2.52	56	2.26
German measles	300	2.80	......	......
Tuberculosis (all forms)	296	2.77	392	15.81
Smallpox	96	.90	3	.12
Venereal diseases	443	4.14	286	11.54
Poliomyelitis	86	.80	19	.77
Typhoid fever	10	.09	7	.28
Meningitis (epidemic)	109	1.02	81	3.27
Erysipelas	226	2.11	......	......
Dysentery (bacillary)	112	1.05	109	4.40
Tetanus	17	.16	......	......
Malaria	7	.07	4	.16
Encephalitis (epidemic)	5	.05	4	.16
Undulant fever	......	......	......	......
Other epidemic diseases	7	.07	167	6.74
	10,698	100.00	2,479	......

One to Four Years.—Among children from one to four years of age, tuberculosis was the chief cause of death, almost one-third of all deaths in this age group having been due to this disease. There were 1,026

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deaths from tuberculosis among these children out of 1,397 cases reported. The cases represented but 1.92 per cent of the total reported, while the deaths represented 33.01 per cent of total deaths that occurred in this group. Next to tuberculosis, diphtheria took the greatest number of lives, 415 such deaths (13.35 per cent) having occurred out of 3,619 cases reported. Diphtheria cases, however, represent less than 5 per cent of the total of all cases of epidemic diseases reported in this age group. Influenza, with 397 deaths (12.77 per cent), was next in importance as a killer of children from one to four years of age. As in the infant group, there may be a question as to the exact cause of death under this title. Next to diphtheria, whooping cough claimed more lives of children in this group. There were 384 deaths out of 19,315 cases reported (more than 25 per cent of the total cases reported). It is obvious that whooping cough is important, too, as a slayer of children from one to four years of age. More than 9 per cent of all deaths in this age group were due to measles and more than 25 per cent of all cases reported were of this disease.

In children from one to four years of age, it is obvious that tuberculosis is most destructive. Diphtheria is important as a direct cause of death, but measles and whooping cough in this age group constituted 52 per cent of all cases of communicable disease and, together, they claimed almost 20 per cent of deaths from communicable diseases.

Venereal diseases claimed few lives in this age group and while there were nearly 100 deaths from epidemic poliomyelitis (3.15 per cent of the total) this disease constituted less than 1 per cent of the total morbidity. Measles and whooping cough as producers of after effects that may be highly injurious in later life must not be lost sight of in weighing the damage of communicable diseases among children from one to four years of age. The tabulation of morbidity and mortality for children from one to four years of age during this five-year period follows:

Communicable Diseases and Deaths in Children One to Four Years of Age, California, 1928-1932

	Cases		*Deaths*	
Disease	*No.*	*Per Cent*	*No.*	*Per Cent*
Measles	18,411	25.35	282	9.07
Chicken pox	15,433	21.35	......	......
Mumps	4,500	6.20	......	......
Whooping cough	19,315	26.60	384	12.36
Scarlet fever	5,966	8.22	86	2.77
Diphtheria	3,619	4.98	415	13.35
German measles	1,096	1.51	......	......
Tuberculosis (all forms)	1,397	1.92	1,026	33.01
Smallpox	563	.78	3	.10
Venereal diseases	576	.79	34	1.09
Poliomyelitis	672	.92	98	3.15
Typhoid fever	179	.25	15	.48
Meningitis (epidemic)	278	.38	136	4.38
Erysipelas	219	.30	......	......
Dysentery (bacillary)	279	.38	105	3.38
Tetanus	36	.05	......	......
Malaria	18	.03	3	.10
Encephalitis (epidemic)	32	.04	29	.93
Undulant fever	11	.02	......	......
Other epidemic diseases	24	.03	95	3.06
	72,624	100.00	3,108	......

Five to Fourteen Years.—In this age group the greatest numbers of cases of communicable disease were reported. During the five years covered by this report 268,029 such cases were reported, as compared with 72,624 cases in the one to four years age group, and 10,698 in the under one year age group. In this older group, tuberculosis again appears as the chief cause of death, more than 40 per cent of all deaths having been due to this disease. Diphtheria was next in importance as a death factor, 16.2 per cent of all deaths having been due to this disease.

Meningitis is more destructive in this age group than in the younger groups. There were 190 deaths (7.11 per cent) from this cause out of 410 cases reported.

It is interesting to note that mumps was conspicuously present in the five to fourteen year age group.

(Continued on Next Page)

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(Continued from Preceding Page)

There were 46,660 cases (17.41 per cent) of this disease reported, but mumps is not a factor in mortality. In the lower age groups mumps was inconspicuous. Chicken pox, too, was more prevalent in this age group, 68,220 cases (25.45 per cent of the total) having been reported. More than 26 per cent of all communicable diseases in the five to fourteen year age group constituted measles cases, of which 70,655 were reported. As a factor in mortality, however, measles is less conspicuous in this age group. Epidemic poliomyelitis was responsible for the deaths of 4.45 per cent of children in this group and scarlet fever was responsible for 5.16 per cent of such deaths. On the other hand, more than 10 per cent of all cases of communicable disease reported in this group was scarlet fever cases, of which 27,480 cases were reported.

Communicable Diseases and Deaths in Children Five to Fourteen Years of Age, California, 1928-1932

Disease	*Cases*		*Deaths*	
	No.	*Per Cent*	*No.*	*Per Cent*
Measles	70,655	26.36	102	3.82
Chicken pox	68,220	25.45	......	......
Mumps	46,660	17.41	......	......
Whooping cough	25,337	9.45	49	1.83
Scarlet fever	27,480	10.25	138	5.16
Diphtheria	8,636	3.22	433	16.20
German measles	8,085	3.02	......	......
Tuberculosis (all forms)	3,942	1.47	1,082	40.48
Smallpox	3,289	1.23	2	.07
Venereal diseases	2,114	.79	28	1.05
Poliomyelitis	1,400	.52	119	4.45
Typhoid fever	1,065	.40	86	3.22
Meningitis (epidemic)	410	.15	190	7.11
Erysipelas	214	.08	......	......
Dysentery (bacillary)	147	.06	22	.82
Tetanus	149	.06	......	......
Malaria	51	.02	7	.26
Encephalitis (epidemic)	38	.01	17	.64
Undulant fever	38	.01	......	......
Other epidemic diseases	99	.04	173	6.47
	268,029	100.00	2,673	......

Summary.—During the five-year period 1928-1932 in California 10,698 communicable diseases were reported in children under one year of age. There were 24,038 deaths from all causes in this age group, 2,479 of which were due to epidemic diseases. The percentage of total deaths due to epidemic diseases was therefore 10.31 per cent.

There were 72,624 cases of communicable diseases in children from one to four years of age. The total deaths among children of this age group was 8,814, of which 3,108 were due to epidemic diseases. The percentage of total deaths due to epidemic diseases in this age group was 35.26 per cent.

Among children from five to fourteen years of age during this period, 268,029 cases of communicable disease were reported. In this age group there were 9,173 deaths from all causes, 2,673 of which were due to epidemic diseases. The percentage of total deaths due to such causes was 29.14 per cent. The greatest risk to life from epidemic diseases occurred in the one to four year group, followed closely by the five to fourteen year group. The importance of whooping cough, tuberculosis and venereal disease in the production of infant deaths is most conspicuous.

The importance of tuberculosis as a cause of death in the one to four year age group, the wide prevalence of both measles and whooping cough, and the increasing importance of poliomyelitis and meningitis are outstanding factors in the one to four year age group.

In the five to fourteen year age group tuberculosis as a cause of death is increasingly important. Diphtheria, too, caused a higher proportion of deaths in this older group than in the younger groups. Epidemic meningitis and epidemic poliomyelitis also took a heavy toll among these older children. The wide prevalence of measles and whooping cough in this group must not be overlooked and due consideration must be given to the rôle that these diseases

(Continued on Page 26)

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(Continued from Page 24)

play in the development of complications and disability in later years. It is interesting to note that 3,289 cases of smallpox were reported in this group of older children. Since this disease is so readily preventable, it is unfortunate that so many cases should occur. The intensive attack that has been directed against diphtheria is reflected in the favorable results shown in the morbidity and mortality records for this disease. Tuberculosis, whooping cough and diphtheria may be credited with destroying the greatest number of these young lives and measles and whooping cough are unquestionably factors of great importance in the development of tuberculosis in the decade which follows.

These tables deserve careful study by all individuals who are interested in child hygiene and the careful application of the facts indicated should result in the prevention of many cases and deaths from these epidemic diseases.

Stop "Bullet in Flight," Says Federal Food and Drug Bureau.—Seizure of poisonous, decomposed or filthy foods is like stopping a murderer's bullet in flight. In his annual report, W. G. Campbell, chief of the Food and Drug Administration, quotes this sharp sentence from an "informed commentator."

He continues, saying seizure has been criticized as only a worthless gesture that may be compared with the arrest of a murderer's revolver after it has slain its victim. Mr. Campbell does not agree. He says it is better to protect the public health by seizing and destroying dangerous food and drugs before they can cause injury than it is to prosecute after the damage is done. Seizure is the prompt and effective method which is the first reliance of the Food and Drug Administration.

Mr. Campbell reports that for the year under review, which ended June 30, 1935, there was a definite increase in the number of seizures and prosecutions. In the course of the year there were 2,011 seizures and 1,029 prosecutions, each of these figures running slightly ahead of the 1934 record. More than 60,000 samples were collected and examined, not by indiscriminate sampling, but as the result of carefully planned procedure which is applied in all inspection districts. Examinations of imported foods and drugs took about one-sixth of the time of the food and drug workers. At the same time, and without relaxing activity in policing the food and drug channels, a program was initiated for training the additional personnel authorized by an increased appropriation for the enforcement of the Food and Drugs Act.

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The Food and Drug Administration continued to devote some attention to alcoholic beverages, including medicinal whiskies, but made only sixteen seizures in the course of the year, leaving most of the work of supervision to the Federal Alcohol Control Administration.

Health Menaces Come First.—As in previous years, the Food and Drug Administration classified food and drug violations into three principal groups and made a rough division of the time and effort to be devoted to each group of offenses. "The suppression of practices constituting menaces to public health requires first attention," says Mr. Campbell. "Next in importance are adulterations involving the contamination of foods with filth or by decomposition. Numerically, however, those violations which involve economic cheats are in the majority." As in previous years, it has not been possible to devote as much attention to the third class of offenses as might seem desirable because the need for enforcement of health and sanitary safeguards is obviously even more necessary.

Spray-residue inspections have been and will probably continue to be the most important single regulatory activity. This takes more time than any other single effort. . . .

Old Stock Drugs.—An unusual development of the year reflected disturbed economic conditions. Unscrupulous drug dealers were more active than ever before in "salvage" and "distressed merchandise" transactions, and would take in trade and try to work off in sales old and deteriorated products. Seizures of this type of goods resulted in discoveries of products that have been on the shelves since before the Food and Drug Act was enacted. These unscrupulous brokers were particularly active in Texas, and the state authorities coöperating with the Food and Drug Administration seized and destroyed twenty-eight tons of these dangerous old stocks.

Fine Tests Catch Adepts.—In the early days of food and drug enforcement, gross violations were easy to de-

(Continued on Next Page)

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Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245
Laryngoscope 1935 XLV, 149-154
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(Continued from Preceding Page)

tect even without delicate tests. Now the few manufacturers who try to cheat are more adept, and the Administration is often forced to engage in intricate research in order to make sure of tests which will stand up in the courts. Perfection of tests for minute quantities of lead in foods has enabled the chemists to detect lead in imported sardines which comes from the solder used in sealing the can. They also find lead in tea that is marketed in lead foil. As a result canners and packers are forced to revise their methods and to pack foods safely.

The supervision of anesthetics—ether and chloroform—continued, and the quality has been improved so greatly that few seizures were required.

The report includes a review of a number of the more important court cases decided during the year. Fines ranged from one cent to as high as $4,500. The report also includes brief sections on the enforcement of the laws other than the Food and Drug Act for which the Food and Drug Administration is responsible. These include the Insecticide Act, the Caustic Poison Act, the Import Milk Act, the Naval Stores Act, and the certification of coal-tar colors. As usual the Food and Drug Administration made many tests for the various purchasing agencies in other branches of the Government.

Nicotin Poisoning.—Genkin and his associates made studies on fifty-five workers (forty-one men and fourteen women), who extracted nicotin and nicotin sulphate from tobacco leaves and some of whom developed symptoms of acute poisoning. The pathologic manifestations developing under the influence of repeated small doses of nicotin belong chiefly to the sphere of the vegetative nervous system. Many of the symptoms are manifestations of the irritation of the parasympathetic, such as bradycardia, arrhythmia, hyperacidity, spasms of the smooth muscles, excessive salivation, and sweating. Another group of symptoms indicates disturbances in the sympathetic. To this group belong vascular manifestations of an angio-

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spastic character in the lower extremities, tremor, and so on. General cerebral symptoms are the result of disturbances in the blood perfusion of the brain. Symptoms such as sleep disturbances, loss of memory and neurotic manifestations are caused by the direct toxic action of the nicotin on the central nervous system. The most frequent symptom, and thus the one that is most important for the diagnosis of nicotin poisoning, is bradycardia. It may appear also outside the acute intoxications. The authors think that it is not so much the result of a central action of the toxin as of the influence the toxin exerts on the nerve cells of the vagus (in the system of the intracardial ganglions). The pupillary reactions, likewise, seem to have diagnostic significance. The authors observed in a considerable number of their patients either contraction of the pupils or a slowness of reaction.

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Therapy of Insect Stings.—Flury, in discussing treatment, points out that the mechanical removal of the venom by suction is impossible in the case of insect stings. Surgical procedures are rarely necessary, except in case of edema of the glottis. In the case of bee stings the removal of the sting is important. Another therapeutic measure is the neutralization of the toxin. This measure is based on the erroneous belief that formic acid is involved in the action of insect venom, but, in spite of this, the frequently employed ammonia is not entirely ineffective. Other substances that formerly were thought to be neutralizing agents, such as sodium bicarbonate, lime water, magnesium oxid and magnesia magma, are sometimes beneficial because they counteract the tension. Some measures are employed to make the venom insoluble. In this connection the author mentions one of the oldest remedies, namely, sodium chlorid, which is dampened and applied or rubbed in. Other substances belonging to this group are magnesium sulphate, ammonium sulphate, some alcoholic preparations, tannic acid, plant juices that contain tannin and certain heavy metals. The author thinks that the use of heat likewise produces coagulation of the venom. He points out that frequently attempts are made to "burn out" insect stings. Tincture of iodin, compound solution of iodin, chlorin water, surgical solution of chlorinated soda and similar preparations aim at a chemical destruction of the venom. Potassium permanganate, likewise, is used much. To counteract the pain, local anesthetics may be employed and the itching may be counteracted by anti-inflammatory agents, such as the phenols and the volatile oils. As a prophylactic measure it is advisable to disinfect the wound with iodin, formaldehyd, or a phenol preparation. The author thinks that most fatalities which occur in connection with insect stings are the result of bacterial infections rather than of the insect venom. The general treatment varies in the different cases. Stings into the blood vessels may produce severe symptoms that resemble anaphylactic shock. To counteract allergic conditions, epinephrin and intravenous calcium therapy have been recommended.—*Medizinische Klinik.*

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Prostitution in Japan. — The unlicensed prostitutes throughout the country who were arrested in 1933 on the charge of being a social menace numbered 6,642, and numerous others escaped arrest. Of these, 6,374 were examined and 223 were found to be suffering from syphilis, 903 from gonorrhea, 209 from soft chancre, and 134 from other venereal diseases. Of the licensed prostitutes, 49,302 were distributed among 509 licensed quarters, under the charge of 10,281 brothel keepers. The number of pleasure seekers who visited those prostitutes in 1933 was 24,922,504, a great increase as compared with previous years. The "geisha girls," who play the part of bar-maid, singer, waitress and sometimes prostitute if required, though unlicensed, numbered 74,200 throughout the country in 1933. Their numbers are decreasing considerably, owing to the rapid increase of waitresses, but they are more or less a source of venereal diseases.

While the abolition of licensed prostitutes will be carried out in the near future, as declared by the government, the prevention of venereal diseases will remain a great social problem, in view of the unlicensed prostitutes. The delay in abolishing the licensed prostitute is due in part to this problem of the unlicensed prostitute.—*Journal of the American Medical Association.*

Acute Rheumatism and Its Results.—Wilkinson states that rheumatic inflammation, whenever it appears, produces a characteristic microscopic lesion—the submiliary focus. It is common in cardiac muscle, pericardium, endocardium, synovial and subcutaneous tissues, and is found in the adventitia and media of arteries in all parts of the body. The typical focus shows four distinct points in its structure: a fibrinous matrix, certain large multinucleated cells, plasma cells or fibroblasts and an aggregation of leukocytes—darkly staining mononuclear cells. At first the nodule shows an aggregation of lymphocytes and plasma cells, later the characteristic multinucleated cells appear, and finally the lesion is replaced by a patch of fibrous tissue. These foci are always accompanied by more or less marked changes in the parenchyma of the tissue invaded and produce a considerable degree of vascular proliferation and hyperemia. In the more chronic forms of acute rheumatism the degree of fibrosis of the myocardium may be truly astonishing. It is of the greatest importance to realize that even in the mildest case in which the myocardium is involved the endocardium may escape; when it is damaged, with consequent valvular defect, the lesson is preceded by changes in the valve leaflets, and the valves are not directly infected from the blood in the chambers of the heart. The mitral valve is most frequently, and the aortic valve quite commonly, damaged, while the tricuspid and pulmonary valves are relatively seldom attacked. Damage is the result of both stresses and vascularity. The relatively avascular pulmonary valves, which sustain comparatively little stress, escape, while the vascular and heavily stressed mitral valve is most seriously and most often involved. Newman has calculated that 0.8 per cent of all elementary school children have rheumatic cardiac disease. Coombes showed that about 40 per cent of all heart disease was rheumatic, that the average rheumatic cardiac patient lived to twenty-eight and one-half years and that only 7 per cent of such patients attained the age of fifty. He also showed that nearly half the children who acquire rheumatism before the age of five years develop serious cardiac damage, while only a fourth of those who develop rheumatism after ten years of age become cardiac patients.—*British Medical Journal.*

Now and then one has to wrest the truth from a book; sometimes one must become a detective to read well. Be not always satisfied with the first gleaning of an author's meaning; great books especially must be read again and again if one is to uncover their deepest veins of thought. Reflect on what you read, recall from time to time the subject-matter of books that seem to you especially significant, discuss their import, be critical, and draw conclusions. So will you bring the ideas and emotions of writers to bear upon your problem and your life; so will you develop understanding and creative power.—Leon J. Richardson.

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Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this journal.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS[†]

ANNUAL SESSION OF 1936: HEADQUARTERS AT HOTEL CORONADO

Hotel Reservations at This Year's Annual Session.—The 1936 annual session of the California Medical Association will have as its headquarters the historic and ever-attractive Hotel del Coronado, and it should not be a surprise to members who have not made reservations to date to learn that only twenty-five rooms are still at their disposal. This means that many members who attend the coming session will be obliged to seek hotel accommodations in San Diego, across the bay, and orders for even these should not be too long delayed. A letter to Association Secretary Warnshuis will bring you a list of hotels.

* * *

Scientific Program.—The Committee on Scientific Program at a recent meeting in Los Angeles reported that the programs for the general meetings and also the numerous sections were well in hand; the chief worry being, not as to sufficient addresses or the attendance, but rather whether the accommodations for meetings would be adequate comfortably to care for members who may wish to attend the sections and hear the presentations of guest speakers or essayists.

With the yearly growth of the State Association, the group of members who offer papers for the scientific programs becomes greater, and, as a consequence, the Committee on Scientific Program for some time past has been forced to decline a considerable number of excellent essays because each section is permitted to have only a certain amount of time, that all the various activities may properly fit, one into the other. Members, therefore, who have in mind papers which they think worthy of consideration, as of interest and value to other members, should write practically a year ahead to the Association Secretary who, as chairman of the Committee on Scientific Program, will be glad to give full information on the requirements and standards laid down for such scientific contributions.

* * *

The Coronado Session Dates Are May 25-28, 1936.—It is suggested that you mark your calendar with these dates and make a mental re-solve to try to attend the meetings of this year. Many subjects of importance in relation to both scientific and organized medicine will be up for consideration. Those who attend annual session meetings always feel they profit, not only from hearing papers and discussions, but also from the pleasant contacts made with colleagues from all parts of the State. The meetings, too, are of value to all members, no matter how long they have been in practice or what is the period of their California Medical Association membership, and a cordial invitation is extended to every member to attend. Try, therefore, to be among those who will answer "Present" at Coronado on May 25-28.

[†] Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comments column, which follows.

EXPERT MEDICAL TESTIMONY: A RECENT LEGAL ENCOUNTER

Claims of a Los Angeles Attorney.—In December last, a member of the Los Angeles County Medical Association was served with a court subpoena to appear with certain records and give a deposition on his professional findings concerning a patient who had been under his observation. He learned that the attorney for the plaintiff intended to demand expert testimony, without giving him the fee for such testimony; client and lawyer contending that, under Section 2021 of the Civil Code of California, a new code provision passed by the last legislature, the physician was so obligated. Upon the advice of his personal attorney, he stated his objections to being questioned; but in order to avoid the delays incident to a citation for contempt of court, he gave his testimony on the questions submitted, all subject, however, to his objections thereto.

When our attention was called to the matter, we wrote to the general counsel of the Association, Mr. Hartley Peart, and his letter of reply may be found on page 136 of this issue.

Mention is here made of the affair lest further demands of this nature be presented to members of the Association. All that is needed to bring such "demanding attorneys" to their senses is the willingness of one of the physicians so cited to refuse to answer on matters of opinion and permit himself to be haled before a superior court on the charge of contempt; after which the matter can be threshed out and settled.

Between attorneys-at-law in the legislature, who elaborate confusing statutes, and others in private practice, who seek to add more confusion, ordinary citizens are certainly, at times, submitted to much inconvenience in combating such nuisances.

ON SOME ARTICLES AND ITEMS IN THE CURRENT NUMBER

Every Issue Contains Some Articles of Special Interest.—In each number of the official Journal an effort is made to present a composite of the California Medical Association's scientific and organization activities in the hope that every reader may find something to his special liking or needs. When, occasionally, attention is called to certain articles, it is not so much because of supposedly superior scientific or literary merit, but rather that the articles mentioned, on account of other reasons existing at the time, may be of immediate or general interest and importance. Thus, in the current issue, mention may be made of the items listed below:

* * *

Infection of Two Laboratory Workers in California with Psittacosis and Tularemia.—From time to time, reports of cases of infection of laboratory workers find places in the literature,* and to these may be added two case reports in this issue; one of psittacosis and the other of tularemia, well worthy of perusal. It is gratifying to know that both patients went on to good recovery in spite of the severe illness each experienced. In this connection, also, may be noted the unfortunate experience of Dr. H. E. Hasseltine of the United States Public Health Service, who contracted psittacosis in the recent work of dismantling the Pasadena laboratory of the State Board of Health; but who, likewise, after a critical sickness, happily recovered.

* * *

"Baking Soda-Sodium Fluorid" Poisonings in San Francisco.—A few weeks ago the lay press contained, day after day, accounts of the illness and deaths resulting from the use of what was supposed to be poisoned baking soda, but which later was shown to be baking soda contaminated by sodium fluorid. After immediate and exhaustive investigation by the Director of Public Health of the City and County of San Francisco, the conditions under which this accident occurred were laid bare. The two articles, one entitled "Poisoning Due to the Ingestion of a Mixture of Sodium Bicarbonate-Sodium Fluorid," by Dr. J. C. Geiger, and the other captioned "Acute Fluorin Poisoning," by Dr. Jesse L. Carr, commenting on the need of more efficient statutory regulations of salvaged goods, make interesting reading. It is, therefore, to be hoped that both State and local regulations, adequate to prevent a recurrence of such accidents, will be enacted in the near future.

* * *

Conference of County Society Secretaries.—On Saturday, January 18, the secretaries of the component county societies were the official guests of the California Medical Association in an all-day meeting held in San Francisco. The program was printed in last month's issue (page 52), and Association Secretary Warnshuis will no doubt present further information thereon. The officers of the State Association felt that this conference, in its initial meeting, had more than justified itself; a sentiment heartily concurred in by the representatives of the county societies who were present.

It is generally agreed that the administrative officer of a county society who carries most of its burdens is the secretary. If the county secretary is familiar with the organization work of the State Association, he can become a powerful factor in creating additional and harmonious effort for the attainment of the policies to which the parent organization is pledged. At San Francisco, on Saturday morning, the State Association officers presented outlines of their work and problems. In the afternoon, round-table discussions were had of the work of the Association and its component societies. Many of these secretaries will be among the delegates at the next annual session, and this preliminary conference will make for better understanding of the numerous subjects which will be presented to the House of Delegates at Coronado.

---

* See October, 1935, CALIFORNIA AND WESTERN MEDICINE, page 260 (Doctor Hasseltine); and January, 1936, issue, page 64 (the late Miss Pabst).

* * *

California Medical Association Council Meeting of January 19.—The Council put in an entire day discussing items on an extensive docket and even then found it difficult adequately to consider all the problems submitted. The complete minutes are printed in this issue.[†]

One of the important matters was the report of the Judicial Council of the American Medical Association on the appeal of two members of the Los Angeles County Medical Association who, some time ago, were expelled by that unit. An inspection of the blackface subheadings of the other items of business will reveal decisions taken on other problems facing the Association. Members are urged to read the minutes, recollecting that the references to subjects are much condensed when written up as minutes. Local councilors and the Association Secretary will be happy to give additional information to members who desire further knowledge on any topics.

STATE ASSOCIATION DELEGATES: HOW ONE LARGE SOCIETY SELECTS ITS DELEGATES AND ALTERNATES

House of Delegates the Association's Supreme Body: Its Important Work.—The increasing importance of the medical-economic problems which, at each year's annual session come before the House of Delegates, makes it more than ever apparent that the election of delegates and alternates should not be a haphazard function, but rather a duty to be looked upon as one of the serious responsibilities of a component county society, and so to be construed by all members. The offices of delegates and alternates should not be regarded as positions of little moment, to be given as transient expressions of courtesy to one member this year, and to another the next. On the contrary, a county unit's members, prior to electing their delegates and alternates should ask themselves: Who, among our number, can best represent the points of view of our society on the business problems of the State Association and its component county units, and who, among us, may be of greatest coöperative service with other delegates in acting on policies vital to the further development of both our Association and scientific and organized medicine?

In smaller societies the overemphasizing of personal regard or other affiliations may, at times, lead to danger and prove not always to result in the best of possible selections. In larger organizations with hundreds of members—many of whom, month in and month out, pay only nominal attention to the general problems of their organization—the task of selection is also no easy matter.

* * *

How the Los Angeles County Medical Association Has Solved This Problem.—The Los Angeles County Medical Association has more than 2,200 members and is entitled, therefore, on the basis of one delegate for every fifty members, to forty-one delegates. Its task is to determine who shall be its forty-one delegates and alternates.

In 1933, the Board of Councilors of that society solved its problem, not through the appointment of a nominating committee, nor even by open-floor nominations, but by a plan of impersonal selection of nominees from a list of state and county officers, who, as such, are familiar with the problems of organized medicine; additional nominations from the floor also being in order. Ballots are previously prepared, containing the list of state and county officers, and with blanks for additional names. The election, therefore, takes but little time; the tellers collecting the ballots and submitting their report before the end of the meeting. The plan is mentioned for its obvious advantages, and because it may have a suggestive value to other county societies wishing to adopt, by resolution, a similar or modified plan as their own future method of procedure. The ballot sheets give the names of holdover delegates so that these are not voted upon. The full number of delegates to which the society is entitled, is voted for; the highest half so elected to act as delegates for two years, the succeeding half to act as alternates. Some of the county societies, even though they have elected their delegates for this year's session, may at this time wish to consider the plan, and then adopt it, or a modification, for use during the next and succeeding years.

From the introductory sheet of the recent Los Angeles ballot the following explanatory excerpts are taken:

> Vote for forty-one (41), the twenty (20) highest to be declared elected delegates for 1936 and 1937, the next twenty-one (21) to be declared elected alternates for 1936 and 1937.
>
> ♦ ♦ ♦
>
> The attached ballot, with nominees for delegates and alternates, was prepared in conformity with Minute No. 687, proceedings of the Board of Councilors, January 8, 1933, which provides that nominees be selected from the following groups:
>
> 1. All members of the Los Angeles County Medical Association who are members of any of the California Medical Association committees.
> 2. All members of the Board of Councilors not already elected to the House of Delegates.
> 3. All committee chairmen of the Los Angeles County Medical Association not already elected delegates.

[†] See page 120.

4. All alternates who have attended two State meetings.
5. All alternates who have attended one State meeting, and have given valid excuse to the secretary for their absence from the second meeting.

On the attached ballot the names of the above nominees are listed in alphabetical order for your convenience. (Additional nominations may be made from the floor.) After each name the following symbols are used to indicate from what list, in accordance with Minute No. 687, the nominee was selected.

C. M. A.—State Association Committee member.

Ch.—Chairman of a County Medical Association committee.

B. C.—Member of the Board of Councilors not now serving as delegate or alternate.

Alt.—Alternate who has attended two State meetings, or who has attended one State meeting and given valid excuse for not attending the second.

EXPULSION FROM MEMBERSHIP: RULING IN A RECENT CALIFORNIA CASE BY THE JUDICIAL COUNCIL OF THE A. M. A.

Los Angeles County Medical Association's Errors in Technical Procedures Bring Reversal of Judgment.—Some time ago, the Los Angeles County Medical Association, through its Board of Councilors, expelled from membership two of the members of that component county society. The members so expelled filed an appeal to the California Medical Association, and the Council of that Association, after several hearings in which legal proceedings were carefully observed, affirmed the action of the Los Angeles County Medical Association.

The expelled members then appealed to the Judicial Council of the American Medical Association, and at the last annual session at Atlantic City, June 10-14, 1935, that body held a hearing on the appeal. The Judicial Council's decision was received by the California Medical Association two days before the California Medical Association Council meeting of January 19, 1936, held in San Francisco, and is given in full on page 120 of this issue.

The attention of all members is called thereto and the lesson to be taken to heart: the importance of being meticulously careful in all disciplinary procedures; since the nonobservance of by-laws of the State Association on method of procedure (with which the by-laws also of component county societies must conform), may lead to the reversal of judgments on technical grounds by the higher constituted bodies in organized medicine, as in the case at issue.

* * *

California Medical Association Is Studying a New Code of Disciplinary Procedure.—The Council of the California Medical Association, through a special committee, is now studying a revised code of disciplinary procedure, which will be submitted to the House of Delegates at the Coronado annual session (May 25-28, 1936), in the belief that its adoption and use will reduce to a negligible minimum the possibilities of reversal on actions previously taken.

MEDICAL AND PUBLIC HEALTH EXHIBITS AT THE 1936 SAN DIEGO FAIR: "C. M. A. DAY" ON MAY 26

San Diego Reopens Its Fair on February 12. San Diego's Fair of 1935, through its beautiful settings and splendid exhibits made for itself a warm place in the hearts and minds of all who were fortunate enough to visit it. As a consequence, the attractive buildings in Balboa Park, instead of being demolished will be utilized for continuing the Fair in 1936, the buildings with displays being opened to visitors on February 12.

One of the structures, excellently built and located, has been set aside as the Palace of Medical Science, and in it will be placed some of the best exhibits on public health, and on preventive and curative medicine that have been shown anywhere. Members of the Association who were not able to visit the San Diego Fair last year will find in the Fair of 1936 an additional reason for attending the California Medical Association annual session at San Diego, its second meeting day, (Tuesday, May 26), having been designated as "California Medical Association Day." An announcement concerning the public health and medical exhibits which has just come to hand, gives the following additional information:

Tuesday, May 26, has been designated as California Medical Association Day at the 1936 California Pacific International Exposition, San Diego, which opens February 12 and will continue to September 9.

Approximately 3,000 physicians and their families are expected to visit the world's fair in Balboa Park upon that occasion.

Focal point of the conclave will be the Palace of Medical Science, one of the principal exhibit palaces of the 1936 exposition, where extensive displays will be sponsored by the leading medical societies and manufacturers of pharmaceutical supplies.

A program appropriate to the day is being arranged by an exposition committee of the San Diego County Medical Society, with Dr. Lyell C. Kinney, 1831 Fourth Avenue, San Diego, acting as chairman. Direct coöperation is being lent by Dr. Ben F. Eager, Medico-Dental Building, San Diego, president, and Dr. W. C. Crabtree, Medico-Dental Building, San Diego, secretary of the San Diego County Medical Society.

A medical exhibit in the Palace of Medical Science will be sponsored by the San Diego County Medical Society, with the coöperation of the California Medical Association and the American Medical Association. Dr. W. H. Geistweit, Jr., of San Diego, has been named director of medical exhibits to arrange details of this exhibit.

The committee of the San Diego County Medical Society includes Doctors Kinney (chairman), J. F. Churchill, W. W. Crawford, T. O. Burger, M. C. Harding, Alex Lesem, B. Eager, and W. C. Crabtree.

The exposition committee of the California Medical Association is composed of Doctors C. G. Toland (chairman), E. M. Pallette, W. W. Roblee, J. C. Ruddock, C. O. Tanner, Robert A. Peers, Fred Clarke, and F. C. Warnshuis.

About 1,300 square feet of space will be occupied by the American Medical Association exhibit, which will be installed under direction of a representative sent to the world's fair from Chicago.

A large space will be occupied by the Chicago Roentgen Club, and x-ray films and pathological specimens will be exhibited by the Southern California Pathologists' Association.

The California State Board of Health, in coöperation with the Hooper Foundation for Medical Research of the University of California, will be represented by a joint display.

An exhibit showing some of the work of the Board of Medical Examiners of the State of California will have a place in the building.

Los Angeles City and County Health Department will present a diphtheria prevention demonstration, and the Automobile Club of Southern California will install a safety exhibit.

Demonstrations of proper feeding of infants will be shown by the West Nursing Bureau and the Southwestern Pediatric Society, and the Pacific Coast Obstetrical Society will also participate.

Combined forces of the California Dairy Council and the Arbitration Board of the San Diego County dairy industry, under direction of Douglas Young and Wilbur Thomas, will present an exhibit, and the San Diego City and County Health Department, will coöperate under the direction of Dr. Alex Lesem, city and county health officer. Nurses, headed by Miss Ilma Lucas, nutritionist of the California Dairy Council, will act as hostesses.

In addition to the educational exhibits there will be lectures and daily presentations of motion pictures on medical subjects interesting to the general public.

The American College of Surgeons has offered to coöperate by sending speakers to the Palace of Medical Science during the exposition. During the school vacations, special motion pictures on health subjects, designed to appeal primarily to children, will be added to the programs.

Commercial displays of prominent pharmaceutical establishments and manufacturers of medical supplies also will be housed in the medical building. One of the first to be installed will be that of the General Electric X-Ray Corporation of Chicago.

It is predicted that the medical exhibits at the 1936 exposition will be the most extensive yet displayed, and will equal or surpass that at Chicago's Century of Progress expositions. The whole Palace of Medical Science will be devoted solely to exhibits treating on the prevention and treatment of disease, and it will form one of the important features of this world's fair, which is dedicated to mankind's progress in all realms of science, art, and industry.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 116.

EDITORIAL COMMENT[†]

DINITROPHENOL AND REDUCING

Much time has been devoted by medical science to a study of fat metabolism and to a solution of the problems concerned in the origin, pathogenesis and treatment of overweight. Practitioners of medicine are forced into daily consideration of the same problems through the frequency with which they are consulted regarding the reduction of weight. Much of their effort, however, has perforce been spent in an attempt to teach the fallacy of the many fads, "cures" and short-cuts so widely advertised for the relief of the condition. The advent of dinitrophenol, it was hoped, would do much to simplify the whole problem.

A review of some 290 cases from the literature, in which dinitrophenol has been administered, seems to warrant several rather definite conclusions. First, the loss of weight under diet and dinitrophenol is not strikingly greater than under diet alone. Secondly, distressing symptoms are commonly attendant upon its use. Thirdly, the toxic effects of the drug upon body function and tissue cannot be denied. Fourthly, the reported deaths from dinitrophenol administration in accepted therapeutic dosages make it hard to justify its widespread application in the relatively benign condition of overweight. Let us, therefore, consider these points seriatim.

Loss of Weight.—Of the 290 patients mentioned, 276 showed loss of weight. In some instances, no loss or actual gain has been reported.[1-5] The burden of evidence shows the undoubted ability of the drug to cause loss of weight, although the mechanisms through which this is accomplished are not thoroughly understood. Bayer and Gray[1] and Strang and Evans[6] have carefully compared the rate of weight loss with and without the drug in their series of cases. The former find weight loss accelerated by the use of dinitrophenol to a greater extent than by thyroid substance. While Strang and Evans observe greater losses of weight in the cases receiving dinitrophenol than in those treated by diet alone, they feel the difference is hardly striking enough to offset the discomfort and possible damage the drug may do. Moreover, very little has been reported as to the behavior of patients subsequent to discontinuance of the drug, while still under dietary regulation.

Distressing Symptoms.—Among the distressing symptoms, one must give prominence to sensations of heat, marked sense of warmth, flushing of the skin, and profuse sweating, all of which may be looked upon as "physiologic" responses to the medication. These manifestations occurred to a greater or lesser extent in the 290 patients above mentioned. In the same groups, some type of skin condition was noted in sixty-eight individuals. This was usually an urticarial or maculopapular eruption, commonly accompanied by intense itching, and at times associated with bleb formation. Commonly reported symptoms were fever, hyperpnea, dyspnea, general malaise, tiredness, exhaustion, dizziness, faintness, headaches, and paraesthesias, at times going on to true neuritis; and pains in various parts of the body, particularly in the calves of the legs, back, and epigastrium.

[†] This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

[1] Bayer, L. M., and Gray, H.: Obesity Treatment of Diet, Thyroid and Dinitrophenol, Am. J. M. Sc., 189:86, 1930.

[2] Finkelmore, I., and Stephens, W. M.: Dinitrophenol in Dementia Praecox, J. Neurol. and Psychopath., 15:230, 1935.

[3] Grant, L., and Schube, P. G.: The Effect of Alpha-dinitrophenol on Blood Cholesterol in Man, J. Lab. and Clin. Med., 20:56, 1934.

[4] Masserman, Jules H.: Dinitrophenol—Its Therapeutic and Toxic Actions in Certain Types of Psychobiologic Underactivity, J. A. M. A., 102:523, 1934.

[5] Tainter, M. L., Stockton, A. B., and Cutting, W. C.: Use of Dinitrophenol in Obesity and Related Conditions, J. A. M. A., 101:1472, 1933.

[6] Strang, J. M., and Evans, F. A.: An Evaluation of Dinitrophenol as an Aid in Weight Reduction, J. A. M. A., 104:1957, 1935.

Less commonly observed were palpitation, anxiety, restlessness, anorexia, sore throat, delirium, and coma. Sore throat and swollen neck glands were found in two instances, with "malignant" neutropenia.

Toxic Effects. — A very good review of the toxic effects of dinitrophenol upon function and tissue has been made by MacBryde and Taussig,[7] who have added some experimental results of their own. Among their conclusions we find: "Dinitrophenol in small doses caused functional changes indicative of toxicity in liver, heart and muscles, in a large percentage of patients in whom no special idiosyncrasy was noted. It also produced a loss of dextrose tolerance." If one carefully scans the effects of dinitrophenol on carbohydrate and fat metabolism, one is led to ponder upon the probability of permanent disturbances in both function and tissue subsequent to withdrawal of the drug.

Reported Deaths.—Seven of the 290 cases, of which we have spoken, eventuated in death; of these patients five received amounts of the drug well within the recommended therapeutic dosage.

Finally, experiences with dinitrophenol should emphasize the fact that "there is no royal road to reduction." Jones[8] has well stated that people grow fat because of an excess of intake over output. It would seem that diet should still remain the fundamental keystone in the management of the overweight and obese patient: it should be supplemented by medication only as the individual case may require it.

450 Sutter Street.

Thomas H. McGavack,
San Francisco.

THE GENERAL PRACTITIONER AND PROSTATIC SURGERY

During the past four years volumes have been written in medical journals, and much has been written and said among the lay persons regarding the electrical, or "new" operation for enlarged prostates. Much of this literature is conflicting, and much of it is misleading, particularly that circulated among the laity. The old maxim, "a little knowledge is dangerous," is exemplified more vividly by the patients who think that they know about their illness or methods of treatment and surgical procedures. It is, therefore, not unusual to have a patient come to a physician with a preconceived idea of his ailment and the treatment indicated. With the proper explanation, the average intelligent patient can be convinced of the fallacy of his opinion, and the physician is permitted to work unhampered.

Much worse than the erroneous opinions of the patient are the erroneous ideas of the physician himself on subjects of which he can of necessity not be thoroughly informed. I refer here to the subject of the treatment of prostatic hypertrophy. The physician who does not do genito-urinary surgery is not expected to keep completely informed of the details of the developments in urologic work. As stated before, the medical literature on the subject of treatment of prostatic hypertrophy has been so voluminous and conflicting that a perusal of the same would leave one somewhat confused. It is only the person who actually does the work, and is familiar with the disadvantages as well as the advantages of the various procedures, who can properly evaluate what he reads.

Further, the present status of the treatment of prostatic hypertrophy is sufficiently flexible to allow for several acceptable and desirable surgical procedures. The particular procedure to be selected for the case under consideration is determined by several factors, namely, the patient's general condition, associated urologic pathology, type of prostatic enlargement and, even at times, the patient's social status and future requirements. In order to determine the above factors, one must necessarily do a complete urologic examination. It is, therefore, apparent that the general practitioner who originally sees the patient and makes the diagnosis of prostatic obstruction is not in a position to make final recommendations as to the procedure indicated in the particular case. When the patient is told that he has an enlarged prostate that will probably require surgery, he frequently asks if he can be treated by the "new electrical method." Many prostatic patients have heard of others who have been operated in that way and, therefore, assume that they are eligible to the same procedure in contradistinction to the "old cutting operation." The patients have an impression that this is a simple procedure, with no risk attached to it and complete cure in every case. This is true in a large percentage of cases, but is, unfortunately, not true in every case. The attending physician is prone to promise the patient this new operation and to refer him to the urologist with that in mind. When the urologist completes his examination and tells the patient that he finds the resection to be undesirable, it is then very difficult to convince the patient of the need of the "cutting operation."

It would seem permissible, therefore, to make a plea to the referring physicians to leave the matter of choice of procedure to the urologist who will do the surgery. A large per cent of prostatic hypertrophies can be properly treated by resection, so one is justified, where necessary, in telling the patient that resection will probably be the indicated procedure. Many are of the belief that the most desirable method of handling this situation is to explain to the patient that he requires a complete urologic examination in order to determine the particular type of enlargement that he has, and to see if he has any associated pathology before recommending the type of surgery to be employed.

1052 West Sixth Street.

J. Salem Rubin,
Los Angeles.

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ORIGINAL ARTICLES

PSITTACOSIS AND TULAREMIA*

REPORT OF CASES—INFECTION OF TWO LABORATORY WORKERS IN CALIFORNIA: RECOVERY

I. REPORT OF CASE: PSITTACOSIS

A LABORATORY worker, who has for four years been intimately exposed to the virus of psittacosis in the form of infected birds belonging to various species, mice and human specimens (sputums and autopsy material), worked on October 6, 1935, with a heavy suspension of L. C. L. bodies (the elementary bodies regularly found in psittacosis) without wearing rubber gloves or face mask. The infective agent had been isolated and concentrated from the chorion-allantoic membrane of several developing chicks artificially inoculated with the virus. It was infective for mice in a dilution of 1.0 by 10^{-8}. On both October 12 and 13, 1935, he felt tired, and at 4:30 p. m. on October 14 he had a definite chill, when his temperature was 39.8 degrees centigrade. During the night a grippe-like general aching was accompanied by a severe pain in the lumbar region. Between 3 and 4 a. m. profuse perspiration gave relief and was followed by sound sleep. During the next four days the temperature invariably rose late in the afternoon to from 39.2 to 39.4 degrees centigrade, accompanied by sensations of chilliness, and then fell to 37 degrees after midnight, followed by perspiration. There was no headache and the night sleep of from six to eight hours was sound, free from dreams, and refreshing. The pulse varied between 76-88 and the respiration was from 10 to 20. Despite the loss of fluid during the attacks of perspiration, thirst was in no way pronounced. There was a moderate anorexia, however, and the digestion and stool were normal. A chronic bronchitis of several months' standing subsided during the first three days of the acute illness, and the absence of coughing or pharyngeal irritation was noteworthy. The nasal mucus, forcibly expelled, was slightly tinged with blood. There was no herpes labialis. On October 16, 1935, the blood examination revealed: hemoglobin, 102; red blood cells, 5,740,000; white blood cells, 5,950; granulocytes, 85 per cent; lymphocytes, 9 per cent; and mononuclears, 6 per cent. Dr. Herbert C. Moffitt examined the patient on October 16 and subsequent days, and recorded the following findings:

"Interesting points in the history were recent laboratory exposures to both psittacosis and tularemia, and a well-known immunity to all forms of Brucella infection. An associate † in the early October work had just entered the University Hospital with high temperature and indefinite pulmonary signs. There was no repetition of the initial chill, although temperature rose rapidly each afternoon for four days. Sweating was profuse for four or five nights, and was followed by rapid drop in temperature and complete relief of malaise and lumbar backache, which was severe for two days. No eruption was seen in mouth or on skin. A cough of three months ceased abruptly with onset of chill and high temperature. On October 21, for the first time tympany was noted over the right back, just inside and below the scapular angle. Cough and deep inspiration caused an explosion of fine crepitant râles, which we have learned to associate with a pneumonic process, beginning in the lower lobe near the hilus and gradually extending toward the periphery. These signs completely disappeared after three days."

Since the pulmonary signs located on October 21 were not followed by coughing, two (one gram) doses of ammonium chlorid were administered. During two coughing spells, a coffeespoonful of brownish-tinged, slightly mucoid sputum was raised on October 22, 1935. Microscopically, it showed streptococci, small and large Gram-negative rods, few Spirochaetes and fusiform organisms. A mouse test for pneumococci was negative. On the blood plates alpha streptococci, influenza and Friedlander's bacilli developed. A broth extract of the sputum inoculated intraperitoneally into mice and a ricebird gave the following results:

Mouse 19382 died on third day. Indefinite lesions.

Mouse 19383 died on seventh day. Typical gross lesions of psittacosis, with L. C. L. findings.

Mouse 19384 killed on ninth day in extremis. Typical lesions. Virus repeatedly passaged through mice and one ricebird.

Mouse 19385 killed on eleventh day. Slight lesions.

Ricebird 476 killed while ill on eleventh day. Slight lesions. Virus passaged.

A second specimen of sputum, definitely blood-tinged, collected on October 24, 1935, at a time when the daily temperature varied between 36.2 and 37 degrees centigrade, presented the same flora. The mouse test for virus was as follows:

Mouse 19390 died on tenth day. Inconclusive, due to spontaneous renal abscess.

Mouse 19391 killed on nineteenth day. Medium-sized spleen.

Mouse 19392 killed on thirty-sixth day. Large spleen, liver necrosis. Splenic suspension, when passaged, fatal to mice in five days.

Mouse 19393 killed on thirty-sixth day. Medium-sized spleen.

Despite the use of ammonium chlorid, no further sputum specimens could be procured. The blood serum collected on November 5, 1935, gave negative agglutination tests with the enteric fever antigens, B. tularense, Brucella abortus and melitensis. The complement fixation test for Brucella abortus was positive in a dilution of 0.05 (the patient is immune to the Brucella types, gives a strong allergic skin test and a phagocytic index of 30). Convalescence was decidedly slow. A general weakness foreign to the patient persisted for weeks. An x-ray film taken on November 14 showed a very faint, hazy density in the lower right lobe.

COMMENT

The observation proves again the customary saying, familiarity breeds contempt, and the general belief that continuous exposures to the virus of psittacosis may lead to a latent immunizing infection is rudely contradicted. In retrospect, it is by no means difficult to trace the disease directly to the careless handling of virus-containing material, which is in all probability far more infectious than the average bird or mice specimens. Darkfield examinations, diverse staining procedures, and the preparation of serial dilutions lend themselves to contamination of the unprotected hands. Furthermore, it is not unlikely that the virus enriched on the chick embryo may acquire new invasive properties. A German bacteriologist, who contracted psittacosis in the ten months of his intensive study of the disease, states that he contracted the infection while passaging the virus through the chicken egg.

The influenza-like character of the attack without headache would have escaped etiologic identification without the examination of the sputum. In fact, this experience lends considerable support to the belief that the mild grippe-like minor illnesses which develop in the occupational groups or households exposed to infected psittacine birds are rudimentary attacks of psittacosis. One naturally would like to know if such an attack leaves an immunity of some sort. Neutralizing antibodies, despite a severe disease, are frequently not demonstrable. The complement-fixation test with the usual mouse-spleen antigen is not very dependable. Perhaps tests with purified elementary bodies may yield more definite information. Finally, one should keep in mind the possibility that the virus which exhibits such a remarkable tendency to latency may remain unrecognized in the body, but may through an intercurrent infection become mobilized. It is, doubtless, unwise to place implicit confidence in the belief that "silent," or even recognized virus infections confer a permanent protection. One must, therefore, continue to maintain appropriate precautionary measures and continuous vigilance against laboratory infections.

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* Editor's Note.—The case histories here reported are those of two well-known laboratory workers in California, who were infected, respectively, with psittacosis and tularemia. Out of courtesy, names are omitted.

† See report of case of tularemia which follows as Part II of this article.

II. REPORT OF CASE: TULAREMIA

A case of tularemia is reported which is of interest as an infrequent type of involvement, and because of the diagnostic problem presented.

The patient, a laboratory technician in research bacteriology, was first seen on October 15, at which time she gave the following history:

Present Illness.—For the past two and one-half years she has been working with psittacosis and relapsing fever material, and for three weeks prior to onset of her illness her duties had also included the handling of material from tularemia cases. She does not recall any break in technique, pricks of hands or defective apparatus, and has always worn rubber gloves when working with infectious material. It is not unlikely that the pipetting of an uncompletely sterilized suspension of B. tularense on October 7, 1935, furnished the source of infection.

On October 10, the patient had some headache and felt unusually tired. She felt improved the following morning and went to work as usual. In the evening she felt feverish and had general aching, temperature 100.8 degrees Fahrenheit. During the night she perspired rather freely, and again felt sufficiently improved to report at the laboratory the morning of October 12. Had no appetite at noon, and left work in mid-afternoon because of extreme fatigue. Headache returned and temperature rose to 101.6 at 10 p. m. Remained in bed on Sunday, October 13, and Monday, October 14; generalized aching persisting, and with headache increasingly severe and throbbing in character. Temperature rose to a maximum of 102, and transient nausea was noted as well as suboccipital pain and slight neck stiffness.

Illness was reported on October 14, and the patient was brought into the hospital the following morning, at which time she complained of constant, severe headache, generalized, general aching, some photophobia and mental dullness. She stated there had been no chills, cough, sore throat or other respiratory symptoms. No adenopathy, no rash; bowels somewhat sluggish since onset of symptoms.

Family History and Past History.—Not significant.

Physical Examination.—Negative for cause of symptoms; no adenopathy.

Laboratory Findings. — Urine, negative; white blood cells, 7,840; polymorphonuclears, 73 per cent; agglutination positive, 1-20—typhoid and paratyphoid A and B and Brucella abortus; phagocytic index, 3.8; complement fixation Brucella, negative.

X-Ray.—Chest showed heavy root shadows, especially on right, and peribronchial infiltration extending from lower hilum on right to an area of consolidation six centimeters in diameter in upper portion of right lobe.

Physical, laboratory, and x-ray findings continued unchanged for the ensuing five days (except that no further agglutination with Brucella abortus was obtained); temperature meanwhile showing wide swings between normal and 104 degrees Fahrenheit. Subjectively continued to have troublesome headaches and slight nausea, but there were no symptoms referable to the lungs. Marked drops in temperature were associated with rather profuse diaphoresis.

October 21: The white blood corpuscle count rose to 12,750, 69 per cent polymorphonuclears; phagocytic index for Brucella, 16.36.

October 22: White blood corpuscle count was 14,350, 61 per cent polymorphonuclears. Chest examination on this date for the first time revealed moderately fine, moist râles over an area 8 to 10 centimeters in diameter on the right side posteriorly, corresponding in location to consolidation shown in x-rays of October 15 and 18, but apparently larger in extent.

October 23: Chest film showed extension of the consolidation outward and downward, with appearance of softening in the original area; blood count, 13,980; polymorphonuclears, 73 per cent.

October 24: Physical examination revealed dullness and suppressed breath sounds below the original involvement, and râles heard over a wider area than at preceding examinations.

Repeated agglutinations and blood cultures were negative during this interval, except for the above-mentioned positive agglutination in low titer, explained by past and anti-typhoid inoculation. Fever continued high; there was very slight, dry cough; and after administration of ammonium chlorid, a small amount of watery sputum, apparently mainly saliva, was obtained and injected into mice and cultured. Culture showed alpha-streptococcus, Staphylococcus aureus, m. catarrhalis, and Friedlander's bacillus.

Pulmonary involvement with slight leukocytosis, fever and headache, were suggestive of psittacosis in absence of laboratory evidence in favor of other etiology. Increasing involvement and falling white count was considered as indications of low resistance on the part of the patient, and it was deemed desirable to assume the probable etiology as psittacosis and administer convalescent serum. Twenty-five cubic centimeters of a pooled serum obtained from two recovered psittacosis patients was given on October 25, and repeated on the following day. It should be noted that one of the donors had also survived a tularemia infection.

Prompt subjective improvement was noted, and a decided drop in temperature followed the serum administration, with no subsequent rise above 100 degrees Fahrenheit.

Diagnosis was made by:

1. Agglutination test, positive, October 28 for B. tularense 1-640—4 plus, 1-1280—2 plus. November 5, for B. tularense 1-1280—4 plus.
2. Skin test October 28, which was positive October 30, with area of reaction 37 mm., central induration 8 mm.
3. Confirmed by recovery of organism B. tularense, identified by agglutination, from lesions in mice dying five to eight days following injection with sputum obtained from patient on October 25. This organism, passed into guinea-pigs, produced typical lesions of tularemia.

Progressive improvement in general condition, physical findings and x-ray evidence have been noted. Convalescence has been slow, strength returning with the reluctance characteristic of B. tularense infections. X-rays still show considerable thickening and suggest the probability of residual fibrosis, although to date each successive film has showed some improvement.

COMMENT

Of special interest is the absence of cutaneous and lymph-gland lesions and the limitation of involvement to the lungs. Presumably, infection took place by way of the respiratory tract, and the location of the lung involvement would suggest primary localization in the bronchial lymph nodes with extension from them into the lung parenchyma. Lack of positive agglutinations up to the eighteenth day, and a high phagocytic index for the Brucella organism on the eleventh day of the disease, added considerably to the problem of diagnosis.

POISONING DUE TO THE INGESTION OF A MIXTURE OF SODIUM BICARBONATE-SODIUM FLUORID*

By J. C. Geiger, M.D.
San Francisco

During the late afternoon hours of Monday, November 18, 1935, P, aged eighty-seven years, was admitted to the San Francisco Hospital seriously ill, after having taken baking soda some six or eight hours previously. In placing a "hurry call" for the ambulance, a neighbor furnished the information that the man's daughter, S, aged fifty-three years, had died within the hour, of what appeared to be some form of poisoning. With only these meager data in hand, an investigation was initiated.

REPORT OF CASES

Case 1.—From the patient, P, it was learned that he had eaten dinner on Sunday, November 17, 1935, with his daughter, S, and other members of the family. The foods served included: roast turkey, dressing, carrots, spinach, applesauce, celery, bread and butter, gingersnaps, and pumpkin pie (all fresh foods). None of those present at the dinner were ill other than P and S. P returned to his home about four o'clock that same afternoon, and retired later without taking other food or drink. On arising at nine o'clock Monday morning, November 18, 1935, and before drinking a cup of chocolate, he prepared and took "half a teaspoonful of baking soda in half a glass of water." The baking soda was part of a quantity given him by his daughter, S, the day before, in a paper bag, as part of a two-pound package purchased by her, in bulk, on Saturday, November 16, 1935. According to the patient's own story, as given to members of the resident staff of the San Francisco Hospital, he vomited about noon, had severe pain over the chest, perspired freely, had diarrhea, experienced a continued taste of the soda, had loss of power in the extremities, and finally collapsed.

The patient's private attending physician was called about three o'clock in the afternoon, and was furnished the information that the elderly man had "had a stroke." On examination, he found the patient unconscious and in a serious condition, with a foamy exudate blown from the anterior nares, "at a rate of about an inch every four or five seconds." In his rapid and necessarily cursory examination, the physician found: evidence of vomiting (the vomitus was liquid, containing no solid material at all), no diarrhea, the eyes reacted to light, while the throat was dry and there was a definite wrist drop ("radial palsy"). Immediate hospitalization was recommended and arrangements initiated. After a fifteen-minute wait for the ambulance, a second call was placed by a neighbor, and the man removed by ambulance to the San Francisco Hospital.

On admission to the San Francisco Hospital the patient was cyanotic, stuporous, but responsive to questioning, and presented the picture of an acute illness involving, perhaps, the respiratory tract, the gastro-intestinal tract, the cardiovascular system, and the central nervous system. During the examination made by members of the resident staff of the hospital, he suddenly died, within twelve hours after having taken the soda.

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Case 2.—From the private physician and the patient's daughter, it was learned that S, also, first used the soda on arising early Monday morning, November 18, 1935. She, also, had retired Sunday evening without taking other food or drink, following the dinner of that afternoon. She was accustomed to taking half a teaspoonful of soda on arising, apparently, usually about 6:30 o'clock. A few minutes after taking the soda she remarked to her daughter that "that soda made me sick," whereupon she vomited violently. This was followed shortly after by profuse perspiration, severe diarrhea, cold extremities, cramps in the legs, urticaria over the neck and trunk, and, finally, prostration. She was put to bed and treated by her physician as having a severe form of "food poisoning." She slept awhile and seemed better for a time, but quickly became worse in the early afternoon and died about three o'clock.

The soda used by S was from the same lot as that purchased by her on Saturday, November 16, 1935, and of which she gave a quantity to her father, P, on Sunday, November 17, 1935. None of the other members of the family were ill, and they, likewise, did not take any of the soda. Samples from the package submitted as being the soda originally purchased by S, on qualitative chemical study, showed definite evidence of arsenic and relatively large amounts of fluorin. Quantitative analysis later showed the arsenic content approximate fifty parts per million and the sodium fluorid to approximate 60 per cent, with sodium bicarbonate but 40 per cent of the total sample. Additional packages, obtained by inspectors from the Department of Public Health on Tuesday, November 19, 1935, from the same source as the package purchased by S, were studied in the laboratory, and their contents, on qualitative analysis, showed both fluorin and arsenic to be present, and on quantitative analysis, checked closely with the sample referred to above.

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Case 3.—It was learned on Tuesday, November 19, 1935, that O, aged sixty-one years, had died on Thursday, November 7, 1935, under circumstances which indicated that sodium bicarbonate might have been the responsible factor and the cause of death. It was subsequently learned that she had taken part of a teaspoonful in water, with a woman friend, on the evening of Wednesday, November 6, 1935, presumably to relieve gastric distress following a meal. Her friend induced vomiting, saying that "the soda did not taste right," but O was not unfavorably impressed by the taste of the soda. She was found dead in her home the following day, Thursday, November 7, 1935. The soda taken by O was obtained from the same source as that used by P and S.

CORONER'S FINDINGS

These three cases were all considered at the same coroner's inquest.

Toxicologic and Pathologic Reports.—These may be briefly summarized:

In the case of O, the coroner's toxicologist reported that fluorin and arsenic were easily demonstrable in the stomach and contents, and in the "baking soda" as well.

In the case of S, fluorin and arsenic were not demonstrated in the stomach and contents; and in the specimen of sodium bicarbonate studied, fluorin was present and the presence of arsenic, while not demonstrated by the Reinsch test, was demonstrable by the Gutzeit test. In the case of S, the positive significant gross changes involved a yellow liver with evidence of cloudy swelling of the cells, with microscopic changes showing toxic degenerative changes (cloudy swelling) of heart muscle, liver cells, the epithelium lining the tubules of the kidney and acute hemorrhagic congestion of the lungs, all interpreted as evidence of protoplasmic poisoning.

In the case of P, the sodium bicarbonate involved was the same as that in the case of S, and the stomach and contents were negative for fluorin and arsenic. The pathologic findings in P, while less marked than in S, were essentially the same (except for evidence of heart disease with coronary sclerosis, as one might expect in a subject of the ninth decade of life), with evidence of a protoplasmic poison having resulted in toxic degeneration of the liver. The coroner's jury, on the basis of the evidence submitted, found that "P, S, and O had come to their deaths after using baking soda with a mixture of sodium fluorid. . . ."

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* From the Department of Public Health, city and county of San Francisco.

OTHER CASES REPORTED TO THE DEPARTMENT

Concurrent with the investigation into the circumstances surrounding the deaths, during which time the findings were given full and complete publicity in the newspapers and through radio broadcast, eighteen cases of non-fatal poisoning, traceable also in all instances to the sodium bicarbonate-sodium fluorid mixture purchased later than October 23, 1935, were reported to the Department. In these instances the bicarbonate-fluorid mixture, used to the extent of one teaspoonful to a quantity of pancake batter sufficient to make pancakes for a family of two adults and six children, produced symptoms and signs of severe gastro-intestinal irritation with vomiting, abdominal cramps and diarrhea, consistently in all those who ate of the pancakes. The maximum dose taken, in any instance, was one teaspoonful in a glass of water. In those instances in which the packages of baking soda were available for laboratory study, qualitative analysis showed the presence of fluorin and arsenic, and quantitative analysis showed varying amounts of both up to 74 per cent sodium fluorid, forty-four parts per million of arsenic, and no sodium bicarbonate. Inasmuch as the various samples studied, all from the same general source, gave varying results on study by the same methods of analysis, one is forced to be impressed by the "spotty" or "pocket" distribution or lack of homogeneity of the mixture.

HOW SHALL THE INSECTICIDE PROBLEM BE SOLVED?

The experience described in this paper has two major aspects: The local problem, with particular respect to the appropriate rigid supervision of persons, firms and corporations dealing in food and drugs, of greater importance in a port city or in a railway terminal city, but a problem which may exist in any city, should be met through suitable legal instruments giving effective authority to the local health official or to the proper state agency, provided that agency is equipped, financed and staffed sufficiently well to cope with the problem, to the end that such appropriate rigid supervision of such dealers may obtain. As we see it, however, the greater and more important aspect involves the whole problem of insecticides, their labeling, distribution, sale and use, and the increasingly important relation of spray residue on foodstuffs, particularly fruits and vegetables, to the personal and public health.

It should not be necessary to point out that fluorids and arsenates are being more widely used in agriculture today than ever before; that in certain areas the content of arsenic in the soil is so great, from spraying, that the agricultural products grown in the area contain significant quantities of arsenic; that present legislation and regulations do not require the labeling of fluorin and arsenic-containing insecticide compounds as poisonous; that insecticides are all too frequently shipped, transported, distributed, sold and used in close association with food and drugs, in the home, the store, the warehouse, on the farm, in the food factory and elsewhere.

Knowing these facts, the question is not, "How do poisonings, such as that herein reported, occur?" but rather, "Why do such poisonings not occur with greater frequency?" Any answer to this problem necessarily involves consideration of the possibility of the occurrence of mild affections unrecognized as caused by the ingestion of small quantities of fluorids, arsenates, or other insecticides or other poisonous compounds which may have been present on foodstuffs. Chemical types of "food poisoning," certainly less frequent during past years than bacterial or bacterial-formed toxic products types, are not to be forgotten in medical practice.

SODIUM FLUORID AS A TOXIC AGENT

Sodium fluorid has been widely advertised as non-toxic for the human, and as a constituent of ant powders the only warning given frequently has been "Keep away from children," implying by inference, perhaps, that it is safe for adults. In the eighteen non-fatal cases reported to the department during the course of the investigation herein reported, adults and children were affected. The quantities of the sodium bicarbonate-sodium fluorid-arsenic mixtures ingested varied from that quantity contained in a few pancakes made from batter sufficient for a family of seven, and in which but one teaspoonful was used for the entire batch of batter, up to one teaspoonful in water. It is but one step further to point out the possibilities offered by sodium fluorid on vegetables, as ant powder or other insecticide; for many ranchers or farmers are of the opinion "if a little of the spray is good, a lot ought to be better." The toxic properties and effects for the human, adult as well as child, of the doses cited, namely, a teaspoonful or less of the mixtures of bicarbonate-fluorid, should be carefully noted and considered by all thoughtful physicians and health officers.

THE ARSENIC COMPLICATION

The presence of arsenic was not entirely satisfactorily explained except that it might have been a contaminant of the commercial sodium fluorid in its manufacture. The possibility of any quantity of arsenic in the commercial product in excess of one part per million was practically denied by the manufacturers of the product involved, and the possibility itself has been both affirmed and denied by official medical and Federal Government authorities. Confusion to the entire epidemiologic study was contributed by the results of the chemical analysis done in the laboratories of the department, since, presumably because of the heterogeneous mixture with "spotty" distribution of the compounds, varying results, both qualitatively and quantitatively, were obtained in small samples of the same specimen one-pound package being investigated. Likewise, it would appear to be true that the presence of fluorids in the material tested affects the results of the ordinary standard tests for arsenic when the tests are carried out, as usual, in ordinary glass containers.

In the Gutzeit test, for example, hydrochloric or sulphuric acid, in reacting with the sodium fluorid mixture permits of the formation of hydrofluoric acid, which, in turn, attacks the wall of the glass container, dissolving sufficient quantities of the glass to permit of positive reactions for arsenic from the arsenic contained in the glass itself. Of course, with a prolongation of the time interval beyond the two-hour period ordinarily followed in standard procedure, the results obtained would indicate greater quantities of arsenic, for obvious reasons. Recheck analyses, in which the reactions were carried out in paraffin-lined containers, gave consistently negative results for arsenic. The only logical conclusion that can be drawn, therefore, as to the source of the arsenic in the mixture (as revealed in the laboratory studies executed during the field investigation by the Department of Public Health, the Coroner's Office, and the Food and Drug Administration of the United States Department of Agriculture) must consider that the varying quantities of arsenic found came, not from the mixture of sodium bicarbonate and sodium fluorid or commercial sodium fluorid, but from the glass containers in which the tests were carried out. It should be emphasized also that the time interval used in the test, as well as the quality of the glass containers themselves, are of considerable import in this respect.

SUMMARY

1. A mixture of sodium bicarbonate and sodium fluorid, sold in bulk as sodium bicarbonate or baking soda, was responsible for poisoning in twenty-one reported instances, three of which terminated in death.

2. Samples submitted by those made ill and by members of the families of the deceased, and those obtained by the inspectors of the Department of Public Health from the various sources involved (except those from intact barrels of the original product) consistently showed arsenic and fluorin on qualitative chemical analysis; on quantitative analysis these same samples were found to contain varying proportions of sodium bicarbonate and sodium fluorid, demonstrating a heterogeneous, "spotty," or "pocket" distribution.

3. The epidemiologic picture, at first confused by the positive reactions indicating the presence of arsenic in the specimens of "baking soda" (sodium bicarbonate-sodium fluorid mixtures) and of commercial sodium fluorid, was clarified through further study, which brought out the fact that hydrofluoric acid, found through the reaction of hydrochloric or sulphuric acid with the sodium fluorid of the mixture, dissolved the glass of the containers and released arsenic therefrom in sufficient quantities to give positive reactions for arsenic. Recheck tests in paraffin-lined glass containers gave consistently negative results for arsenic.[1]

4. It should be emphasized that there is no danger from sodium bicarbonate of standard brands, sold in good condition, in the original package.

5. The incident should awaken interest in the real and potential hazards existing in the salvage of foods and drugs, and the need for effective legislation which will require and provide adequate official supervision and regulation over all persons, firms and corporations dealing in foods and drugs.

6. This incident, as also those reported by Simpson and his coworkers,[2] should serve as a warning and give impetus to the medical profession as well as local, state and federal authorities and officials, to secure adequate control over the labeling, manufacture, distribution, sale and use of insecticides, particularly those containing fluorin.

IN CONCLUSION

Fluorid poisoning, as a result of the ingestion of quantities smaller than those heretofore considered toxic for humans, is a very real hazard to the public health, even as a cause of death, in addition to the effects of the mottling of teeth, as reported from Arizona and other points,[3] and gastro-intestinal irritation. The control of traffic in insecticides should receive attention as a medical problem, rather than simply an agricultural and entomologic problem, affecting the personal and public health.

101 Grove Street.

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ACUTE FLUORIN POISONING*

WITH REPORT OF FIVE CASES

By Jesse L. Carr, M.D.
San Francisco

Discussion *by P. J. Hanzlik, M.D., San Francisco; C. D. Leake, Ph.D., San Francisco.*

OCCASIONALLY, in any year, a city the size of San Francisco is turned into a biological experimental laboratory by an unfortunate accident. The tragic residue of such misfortune accumulates in the civil courts of the city, while the scientific data is collected and compiled at the city morgue. As the result of a recent unfortunate circumstance in San Francisco, three deaths were recorded from the ingestion of almost pure sodium fluorid, and we wish to add to these three two more deaths which resulted from the voluntary ingestion of fluorid-containing insecticides with suicidal intent. All of these cases show consistent and similar anatomical changes which substantiate pathologic findings reported by others. They have an additional interest, however, in that they contribute to the knowledge of the minimum lethal dose of fluorid which will kill human individuals. It has been known for some years that reasonably small amounts of sodium fluorid or sodium fluorosilicate would cause death, and Marcovitch,[1] in 1928, discussed the acute toxicity of sodium fluorosilicate, reporting a fatal case where only half a teaspoonful of the substance had been ingested. Fatalities from less sodium fluorid than this are not available in the literature, but deaths from the substance have been reported by Sommelet,[2] Kockel and Zommerman,[3] Hickey,[4] McNally,[5] and Luhrig,[6] whose second patient had taken one-half teaspoonful of insecticide containing 99.6 per cent sodium fluorosilicate, while McNally reports death from ingestion of 4.5 to 5 grams of sodium fluorid. Much smaller doses than this, of course, will cause acute toxicity without death, and Kolipinski,[7] in 1866, pointed out that in human individuals any amount of sodium fluorid in excess of one-fourth grain (0.016 gram) is liable to cause nausea. Baldwin[8] reported that a quarter of a gram by mouth would cause nausea in two minutes, and Vallée,[9] in 1920, reported seven cases of poisoning by sodium fluorid where the amounts absorbed were reported as from 0.228 gram to 0.45 gram. Other reports seem to establish that the minimum toxic dose is somewhere around 0.05 of a gram, with the symptoms of gastralgia, nausea, vomiting, convulsions, paralysis of the motor center and salivation increasing to the minimum lethal dose, and that death would occur after the ingestion of four grams or perhaps a little less. The information on animals is somewhat more accurate. In 1867, Rubuteau[10] published data showing that when 0.5 of a gram was given to dogs by mouth, symptoms were produced, but he found that 0.25 of a gram by mouth produced no demonstrable changes. One gram intravenously caused serious symptoms, but was not fatal. In rabbits, 0.25 of a gram by mouth caused symptoms, and the same amount injected intravenously proved to be fatal. In 1894, Haidenhain[11] reported the fatal dose of fluorid for a dog to be 0.05 to 0.1 of a gram per kilogram of body weight when given intravenously. And Leake,[12] corroborating this finding, reported 87.5 milligrams per kilogram to be the minimum fatal dose intravenously in rabbits. Death occurred about forty minutes after injection of the minimum fatal dose. In continuing this work, Muehlberger,[13] in 1930, tested other fluorid salts than sodium fluorid, but with essentially the same findings. The symptoms he observed were salivation, diarrhea, tremor and, at times, terminal clonic and tonic convulsions. Animals receiving barely lethal or slightly smaller doses showed a persistent cachexia, and albuminuria was frequently present. In rabbits killed by sodium fluorid, the pathologic changes he noted were limited to the liver and kidney, the liver showing some congestion and hydropic degeneration, as well as some fatty changes in the cells. Schultz[14] found that lethal doses in experimental animals acted on the central nervous system, as well as upon the stomach and blood, producing a paralysis of the cord and brain, ending in stiffness, numbness, salivation, and gastric hemorrhage. The whole subject, in both acute and chronic forms, is presented in the excellent review of De Eds.[15]

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* From the department of pathology (University of California), the San Francisco coroner's office, and the San Francisco Hospital, San Francisco.

In the first group of three cases to be reported, fluorid was taken in the form of sodium fluorid after being mistakenly sold for sodium bicarbonate and ingested with the same impression persisting. As far as can be determined, approximately half a teaspoonful, or three to four grams, was taken in these cases, with death following in from six and one-half to twelve hours.

REPORT OF CASES

1. *Accidental Poisoning Group*

Case 1.—Mrs. C. O., white, sixty.

At eight o'clock p. m. the subject was visiting a friend who had some gastric disturbance and suggested that she take a little soda for relief. The friend acquiesced, and took one-half of one teaspoonful (three grams) in water. Although feeling perfectly well, Mrs. O. also took half a teaspoonful (three grams) in water, to be sociable. They both noted an odd, rather bitter taste, and a few moments later both were nauseated. The friend immediately vomited her entire gastric content. Vomiting was attempted by Mrs. O., but was fruitless. There was a rather rapid prostration, a feverish feeling, and in fifteen minutes a diarrhea. Severe oral burning ensued and the tongue was sore. She remained with her friend, who had been able to vomit repeatedly, until midnight, when she went home. At this time, approximately four hours after ingestion, she was very weak, nauseated, and having a premonition of death requested an autopsy in the event of her demise. Her brother gave her some hot water and then retired. She died unobserved at approximately 2:30 o'clock the following morning, six and one-half hours after the initial symptoms and ingestion. The autopsy findings were consistent with the composite report, which follows. Chemical analysis showed fluorid and a trace of arsenic in the stomach, liver, and kidneys. Analysis of the material ingested showed 99 per cent pure sodium fluorid, and 250 parts per million of arsenic, the latter being regarded as a commercial impurity. Subsequent studies show the arsenic to have been dissolved out of pyrex glass of the container by the etching action of sodium fluorid solution.

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Case 2.—Mrs. B. S., white, fifty-three.

It was the subject's custom to take a little baking soda twice a week in water shortly after arising in the morning. At 7 a. m., the day of her death, she entered the kitchen shortly after dressing and took one-half of one teaspoonful of a substance which she had purchased in bulk the previous day, and supposed was baking soda. Her husband found her a few moments later sitting in a chair with perspiration beginning to appear on her forehead. She remarked immediately: "Leave that baking soda alone—it is poison." Inside of ten minutes there was extreme nausea and vomiting, with diarrhea following about fifteen minutes after ingestion. A doctor was summoned and arrived approximately twenty-five minutes after the material was taken. He found the patient pulseless and prostrated. She was put to bed, still vomiting, and was given hot water each time emesis occurred. The type of poison was not known and no antidote was given. There was no abdominal pain. In approximately an hour she was semi-comatose and began to have successive chills. Hot-water bags were placed about her, following which she relapsed into coma again, from which she would awake, vomiting. She grew progressively weaker and had a constant premonition of death. At 2 p. m. she felt cramps in her legs and had some clonic spasms. She was given an alcohol rub, which eased her somewhat. About 2:30 p. m. her whole body broke out in a rash. Weakness was increasing. She had a feeling that she was burning up inside. She begged for water, which was administered, and attempted to vomit at this time, but was unable to raise any fluid. The patient was extremely weakened and muscular contraction was difficult. She was semiconscious, however, and able to converse with her daughter. At 3 p. m., eight hours after ingestion of the poison, she died, apparently from a respiratory paralysis. The autopsy findings in this case were consistent with those which are subsequently described. Fluorid was not recovered from either her stomach or viscera. The material ingested was 84.5 per cent sodium fluorid.

* * *

Case 3.—Mr. A. T., age eighty-six. Retired carpenter. Father of Mrs. S., Case 2.

The patient was found in bed about 2 p. m. by neighbors, who immediately summoned a doctor. Examination showed him to be salivating, frothing at the mouth and nose, practically pulseless, cold and comatose. He was transferred to the Central Emergency Hospital. By emesis in the sink, it was concluded that he had been vomiting. Because of this the stomach was not lavaged at the Emergency Hospital, but the patient was put to bed and kept warm. He improved, and at approximately five o'clock in the evening was able to talk. He gave a history of having eaten a large dinner the day before and, feeling distressed that evening, had taken baking soda. The following morning, upon awakening at seven o'clock, he felt sick and nauseated, and took approximately one-half teaspoonful more in water, the soda having been part of the package his daughter Mrs. S. purchased the previous day. This made him acutely ill and he vomited a number of times, which was followed by diarrhea. The vomiting and diarrhea continued the better part of the day. Later in the afternoon he noticed that his hands were growing weak and gradually becoming paralyzed. He felt very weak and had some pain across the lower part of his chest. Froth, which had been found exuding from his nose when first visited by his doctor, had disappeared, and at 5:30 p. m. his temperature was normal, blood pressure was normal, and pulse was 85. His hands and arms were paralyzed and there was some weakness of the lower limbs. He grew gradually weaker and died at 7:20 p. m. that day, approximately twelve hours after ingestion of the poison. Toxicologic examination of the stomach was negative for fluorid, and the presumption is that he had completely evacuated the substance by vomiting.

COMMENT

The clinical similarity of these cases is apparent, the only variation being rapidity of death after ingestion. The shortened interval in the first instance, we believe, is due to the inability to evacuate the stomach by vomiting, and this is substantiated to a great extent by the finding of fluorid in the stomach of the first individual, and by its absence in the stomach of the other two.

2. *Suicidal Poisoning Group*

The second group of two cases were the results of voluntary suicidal ingestion and, while no histories are, of course, available, it appears by the amount of insecticide remaining in either can that something less than an ounce of the material was taken. Both individuals were found dead in the morning, having died during the preceding night. Fluorid was recovered from the stomach in both instances.

PATHOLOGIC FINDINGS

The pathologic changes in all cases are consistent, and will be reported as a composite picture. Upon the initial incision one is struck by the extraordinary congestion and hemorrhagic infiltration of all of the organs, but particularly of the spleen and lungs. Throughout the pulmonary parenchyma, there is a dilatation of the vessels and congestion of the vascular channels, and blood oozes from the alveoli as the tissue is cut. Because of this infiltration the lungs are increased in weight, but they show no focal areas of necrosis or other damage. The heart varies with age and physical influences, but shows, in addition, a moderate dilatation, loss of muscle tone, and a congestion of the vascular beds. The liver is quite yellow, but the edges are sharp and the color is uniform. There are no areas of necrosis or acute damage, but on section there is a cloudy swelling apparent throughout. The spleen is enlarged, acutely congested and engorged with erythrocytes. The lymphoid elements are not prominent. The pancreas appears grossly normal, but the kidneys show an acute congestion, are rather edematous and moderately swollen. The reproductive organs in both male and female show no pathologic changes. In the gastro-intestinal tract there is an acute congestion, and hyperemia of the gastric mucosa, as well as similar changes to a lesser degree in the rest of the bowel. There are small points of hemorrhage in the gastric mucosa, and the stomach contains blood-stained fluid.

Microscopic sections show an edema of the heart muscle, with some separation of the fibers and a little cloudy swelling of the cytoplasm. There is a general congestion of the circulatory channels, but no apparent endothelial damage. The lungs show the diffuse congestion described grossly with cells packed densely into the capillaries of the alveolar walls, and with fresh hemorrhage in the alveolar spaces. There is no acute focal necrosis and no evidence of inflammation other than the acute congestion. The liver shows a moderate fatty infiltration of the cells, with large droplets in the cytoplasm. The cytoplasm, in addition, is quite cloudy, and the cells are swollen. There is no degeneration or breaking up of the nuclei, however, and no changes about the portal areas. The spleen is congested with erythrocytes and the sinusoids are packed full of these cells. There is no apparent change in the white cell element, while the pulp and corpuscles are normal excepting for a moderate edema. The acinar cords of the pancreas are normal and the islets show no changes. The glomerular tufts of the kidneys are congested, and the capillary channels filled with erythrocytes. The glomerular capsules are clean, however, and the capsular spaces contain no exudate. There is a general cloudy swelling of the cells lining the tubules. The sections of the genital system are normal. Sections of the gastro-intestinal tract show an acute hyperemia and congestion of the circulatory channels. There is a little blood on the surface of the mucosa, and some of the mucosal cells are cloudy and beginning to degenerate. Changes in the central nervous system are limited to edema and a congestion of the vascular channels.

COMMENT

These findings are consistent with the pathologic observations in the previous cases of fluorid poisoning which have been reported by others. The clinical symptoms, too, substantiate published reports excepting the rash which appeared currently in Case 2. This, we feel, was not a toxic rash, as has been suggested, but a multiplicity of petechial hemorrhages following the chemical action of the fluorid ingested. As Kobert suggests in his "Lehrbuch der Intoxikationen," the coagulation of the blood is abolished because of the binding of the calcium with fluorin, forming the insoluble calcium salt. While this exact mechanism may be subject to some question, there is no question that sodium fluorid is an active and efficient anti-coagulant, and such a property was probably operative in the individual. The hemorrhages were the same cutaneous petechial type that one would see in any other hemorrhagic diathesis, whether chemical or due to physiologic changes in the preformed clotting elements of the blood. The consistent bloody fluid found in the stomach is also probably partly due to this anti-coagulant factor.

The mechanism of fluorid toxicity appears to be most logically on the basis of a combination of a fluorid ion on calcium metabolism, as suggested by Kobert and others, as well as from its inhibitory action on lipase and other enzymes as reported by Amberg and Loevenhart.[16] According to Embden and Lange,[17] and Embden and Hentschel,[18] the presence of increased amounts of fluorid ion interferes with equilibrium between lactocidogen, lactic acid and phosphoric acid in the blood stream. This, as De Eds [15] suggests, may contribute, in interfering with the physiology of normal muscle contraction, to the extreme weakness experienced by these patients. From pathologic observations it is apparent that the salt acts as an acute protoplasmic poison, and the cloudy swelling and early cytoplasmic damage which is seen in all of these cases is the result of its influence.

While none of these cases of either accidental or voluntary intoxication were apprehended early enough to attempt the administration of a remedy, it has been suggested by Vallée, and Stanton and Kahn that administration of a soluble calcium salt would, to a great degree, bind the mobile fluorid ion and result in detoxification. Large amounts of milk have been suggested and used with some benefit, due probably to the calcium effect, while Stanton and Kahn [19] report a case that recovered after a lethal dose of sodium fluorid, which was treated by massive gastric lavage, lime water and calcium chlorid.

CONCLUSIONS*

1. Five cases of acute fluorid poisoning are reported which corroborate the clinical and pathologic findings of previous reports.
2. Terminal cutaneous petechial hemorrhages are observed, and their presence attributed to the anti-coagulant action of fluorin.
3. The mechanism of fluorid toxicity is probably due to a combination of formation of an insoluble calcium salt, and by the interference of the action of enzymes and lactic acid metabolism.
4. Three grams is a sufficient quantity to cause death in man.
5. Gastric lavage and subsequent stomach washing with lime water, milk, or other calcium salts, are at present the most proper treatment.

University of California Medical School.

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DISCUSSION OF PAPERS OF DRS. GEIGER AND CARR

P. J. Hanzlik, M. D. (Stanford University School of Medicine, San Francisco).—Doctor Geiger's paper covers the problems of acute and chronic fluorid poisoning so well that I can add but little more than approval. Doctor Geiger suggests the proper remedy for avoidance of such a shocking occurrence as happened in San Francisco, and the public is clearly entitled to that protection. No one today, who fully understands the phenomena of chronic intoxication, would disagree with the contention that insecticides and spray residues constitute a public hazard of large proportions. Minute quantities of these poisons act so insidiously and slowly that they may actually be the etiologic factors in some common disorders, the symptoms being much alike. Fluorid, in any form, is one of the most dangerous insecticides and contaminants of natural foods and waters. So-called "mottled enamel" or bleaching of growing teeth in animals occurs after taking in food something like only fourteen parts per million of fluorid, and in children one part per million. There are probably other systemic abnormalities caused by prolonged ingestion of fluorid. The action is apparently not a simple matter of decalcification, because calcium fluorid produces the same effects. What is fundamentally involved in fluorosis is as yet undetermined, although some intrinsic impairment of protoplasm and enzymes appears plausible, which merely emphasizes the insidiousness of this intoxication. The complete elimination of fluorin as an insecticide, and use of soils and waters where it is a contaminant is the only remedy at present. Constructive work on insecticides should concern itself with the development of volatile organic substances which leave no residues, in order to eliminate all hazards to health. This paper again indicates Doctor Geiger's alertness and constructive attitude on all matters pertaining to the health of the people.

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P. J. Hanzlik, M. D. (Stanford University School of Medicine, San Francisco).—Doctor Carr's summary brings up to date practically all that is known about acute fluorid poisoning. The disionization of calcium in the blood and tissues is undoubtedly responsible for the symptoms and tissue changes of the acute poisoning, and the more soluble the fluorid the more rapid the onset and more violent the symptoms, as occurred in these cases. Chronic poisoning is, of course, different fundamentally, since calcium fluorid and insoluble fluosilicates produce the intoxication quite readily. Calcium is the choice antidote for acute poisoning and should be used locally and systemically, the gluconate being better tolerated than the chlorid, both intramuscularly and intravenously. Charcoal can be profitably given in liberal quantities and left in the stomach after the lavage is completed. Tremors or convulsions, if present, can be controlled with barbital. According to Doctor Carr, the total fatal dose for a man is much smaller than has been frequently supposed. In the presence of food, recovery can probably result from larger quantities.

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C. D. Leake, Ph.D. (University of California Medical School, San Francisco).—As Professor P. J. Hanzlik of Stanford University has remarked in other discussions of reports by Doctor Geiger and the members of the staff of the Department of Public Health of San Francisco, the citizens and medical profession of the city may be extremely grateful for their splendid work. Doctor Geiger has developed a technique of frankness and honesty in his relation with the public and the profession which is almost unique, but which has been responsible for great and significant improvement in public health matters in San Francisco. The promptness with which Doctor Geiger and Doctor Carr are reporting to their scientific colleagues the essential facts in the recent fluorin poisonings in San Francisco is eloquent testimony of their desire to coöperate fully with their colleagues in every affair concerning public health. The difficulty of arriving at an accurate picture of the unfortunate situation is graphically described by Doctor Geiger. There is no doubt but that this incident will serve to bring about much more satisfactory public health control of hitherto unregulated food and drug dealers. It will also serve to bring to the city chemist improved apparatus and facilities which he has for so long needed.

Doctor Carr's report is an excellent review of the essential features in acute fluorin poisoning. The widespread use of various fluorids in pest control makes it necessary that all physicians be aware of the possibility of acute poisoning from these substances. The protection of water supplies to prevent chronic fluorin intoxication is a public health matter, and physicians must also be familiar with the symptoms of such poisoning. The review made by De Eds (*Medicine,* 12:1, 1933) is the best available on this matter.

It is interesting that the amounts of sodium fluorid taken by the individuals mentioned in Doctor Geiger's and Doctor Carr's reports is in the range of the minimal fatal dose that we found in animals. We found that 87 milligrams per kilogram would kill about half of the animals into which it was intravenously injected, and later we found that approximately this same dosage given by mouth was also in the minimal toxic range. This latter work was not reported. It was our opinion that the chief factor in acute fluorid poisoning is calcium precipitation. However, we brought forward definite evidence to indicate inhibition of enzyme action throughout the body (*American Journal of Physiology,* 90:426, 1929). We had previously found (*American Journal of Physiology, 76*: 234, 1926) that sodium fluorid by mouth is extremely irritating to the stomach mucosa, rapidly producing marked congestion and erosion in high concentrations. Although the weights of the patient referred to are not given, they took amounts of sodium fluorid apparently around three grams or more. Since there were two elderly women who died and one old man, it may be assumed that their weights were not very great and that they ingested and absorbed amounts of sodium fluorid in the range of 60 to 90 milligrams per kilogram.

The fluorids constitute a definite public health hazard, both from the standpoint of the accidental or suicidal ingestion of insect powders or chronic poisoning from contaminated water supplies. These reports by Doctor Geiger and Doctor Carr comprise an excellent survey of these dangers, and of the necessity of attempting to control them.

PSYCHIATRY AND THE LAW*

By Benjamin W. Black, M.D.
Oakland

Discussion *by Walter Rapaport, M.D., Imola; J. M. Scanland, M.D., Agnew; Margaret H. Smyth, M.D., Stockton.*

Much confusion has existed in the minds of laymen as well as physicians, and also in the minds of attorneys regarding the use of the term "insanity." Many maintain that the term is purely medical, while others as seriously contend that it is a legal contribution, both as to name and as to conception. Glueck states that the specific term "insanity" seems first to have been introduced into the law by medical experts, finally superseding such terms as madness, lunacy and mental unsoundness, which were borrowed from the very imperfect psychiatric knowledge of the day. The word "insanity" seems to have been quite generally used by commentators on the law in early times, and it is probable that all such terms were popularly used until they were taken over by the first systematic writers both in law and in psychiatry, and applied to this specialized field.

RULES OF LAW GOVERNING INSANITY AS A DEFENSE TO CRIME

The rules of law governing insanity as a defense to crime are vague and confused; clearly unsound in that they are based upon notions of the mental disorder discredited by medical science. Owing to the careless use of language by judges and others in the law, insanity has become synonymous with criminal irresponsibility, by reason of a certain type and degree of mental disorder which was noted far in advance by means of artificial tests of criminal responsibility. Because the law has preëmpted the term "insanity" and specialized it, judges frequently employ the term in the sense of irresponsibility, while psychiatrists seek other terms to distinguish the mentally-ill without reference to criminal responsibility. This practice has resulted in judges on the bench frequently attempting to distinguish between "legal insanity" and "medical insanity." This subject has been under discussion by English and American courts, legislators, and legal writers for more than a century. As long ago as 1800 the brilliant Lord Erskine, in his argument as counsel in the trial of Hadfield, attempted to lay down a universal test of responsibility in cases where the defendant suffered from a mental disease. His effort and the efforts of others have yet failed to attain clarity and uniformity; and even to this date, no universal test of responsibility has been generally adopted. There are many reasons for this; but for a branch of learning which has as a specialized objective largely the definition of words and their making, the law is strangely lax in its use of the term. Unfortunately, the word has no technical meaning either in law or in medicine, and is used by the courts and by legislators ordinarily to convey either one or two meanings:

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* Read before the Neuropsychiatry Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

(1) A type or degree of mental defect or disease, or (2) Such a degree of mental defect or disease as to entail legal consequences, as for example commitment to a state institution, appointment of a guardian, or to avoid a contract or relieve responsibility for crime.

Many states have a provision in law that no act can be punished which was done "in a state of insanity," or while the person "is insane." In one decision, this was held to mean that no act done by a person suffering from a mental disorder of any sort could be punished. On the other hand, it is generally held that persons are exempt from punishment only when so mentally disordered as to come within the test of responsibility which has been established or accepted in the particular jurisdiction served by the court. Great clarification would immediately result if the term "insanity" could be eliminated, and in its place the use of some other term as, for example, "mental disorder" or "psychosis," or by the use of a more specific term when referring to the medical concept of mental ill health, and other terms clearly legal to describe the concept having to do with the lack of responsibility by reason of insanity at the time the crime was charged, or present insanity at the time of the criminal proceedings.

PRESENT ATTITUDE OF CALIFORNIA COURTS TO INSANITY

For the purpose of this discussion, the present attitude of the courts relative to insanity in California is attempted, so that our conception concerning the term "insanity" and its implications when used as a defense for crime may be better understood and at the same time pertinent facts may be submitted which permit a more intelligent service by physicians who may be called to serve the courts. From a recent charge to a jury in the Superior Court in this State, one may find clearly the attitude of the Bar toward the plea "not guilty by reason of insanity" as usually permitted as a defense for crime. This particular Superior Judge stated that the general test which is recognized by the law in California as being the test by which to determine whether or not a person charged with a crime should be held responsible for his acts or should be excused because of some diseased mental condition, is called the Right and Wrong Test:

> "The law presumes every man to be sane and to possess a sufficient degree of reason to be responsible for his crimes until the contrary is proven. To establish a defense on the ground of insanity, it must be clearly proven that at the time of the committing of the act the party accused was laboring under such a defect of reason from a disease of the mind as not to know the nature and quality of the act he was doing, or if he did know it, that he did not know he was doing what was wrong.
>
> "It is at once apparent from a mere statement of this test that there are many persons suffering from various degrees and kinds of mental diseases, and who for most purposes would ordinarily be regarded as insane, but who nevertheless have sufficient mentality to know the nature and quality of their acts and to know that what they are doing, or may do, is wrong, and who, therefore, are to be called sane under the legal test just given. The law is thoroughly aware that under the right and wrong test, persons who are mentally diseased may nevertheless be found to be sane, but the reason for the character of the test is to be found in the purpose for which the test is used. The right and wrong test was never intended as a method of determining the existence or nonexistence of mental disease. It was intended as a method of determining whether persons charged with crime should or should not be relieved of the ordinary consequences of their acts by reason of a diseased mental condition. The law does not recognize a diseased mental condition as being of itself a defense to crime any more than it so recognizes a diseased physical condition; and a diseased mental condition relieves a person charged with crime of the consequences of his acts only when his defect of reason is such that he is not aware of the wrongful nature of his act."

FINDINGS OF THE EXAMINING PHYSICIAN

With this clearly in mind, a physician called to examine a person who has entered such a plea must find that the patient at the time of the commission of the crime must have been so deranged mentally as to be unable to determine the difference between right and wrong. He must have been so seriously deranged mentally as to be unaware of his surroundings: unable to tell where he was, who he was: or properly identify persons with whom he was associated or with whom he came in contact. He must have been, because of his mental disorder, so greatly deranged as to be unable to appreciate the action of the court or confer with counsel relative to his own defense. He must be unaware that the commission of a crime results in punishment, and must be unable to understand that if guilty of the crime charged, he will be punished by commitment to the penitentiary or punished in some other manner.

CALIFORNIA LAW REGARDING COMMISSIONS OF THREE PHYSICIANS

In this State the law permits the court to appoint a commission consisting of not more than three physicians, one of whom shall be an active member of the staff of the state hospitals, and either of the other two may or may not be a trained psychiatrist, but each must have had experience concerning insanity in order that they shall advise the court relative to the findings after examining the defendant in court and hearing the testimony given. In criminal proceedings the defense, as well as the prosecution, is permitted to employ alienists who are presumed to have special knowledge governing mental disorders, and who are expected to testify from examinations made, from information received, and from observation in the court, their conclusions relative to the mental capacity of the defendant. The commission appointed by the court is expected to reserve its opinion until all the testimony is in, and then arrive at an opinion when all the facts are in its possession. The commission is presumed to be entirely impartial; the presence of members of the commission in the court is in the capacity of expert advisors to the court itself. The jury makes the final decision, and in spite of the testimony of experts and alienists who may appear, the decision of the jury is final, and when the jury determines the mental capacity of the defendant, such a decision must stand as a part of the record of the court. Alienists and other physicians are often times expected to testify from a series of hypothetical questions presumed to cover the testimony introduced, and from such questions draw the conclusion as to the insanity of the hypothetical person, well known to all to be the defendant in the case.

RESPONSIBILITY OF THE INDIVIDUAL PHYSICIAN AS A PSYCHIATRIC EXPERT

A psychiatrist or other physician appointed by the court or employed by either the prosecution or defense to examine a person charged with a crime whose defense is a plea of "not guilty by reason of insanity," must appreciate that his determination in the case under present court procedure is one of responsibility or lack of responsibility governing the action of the patient at the time of the commission of the crime charged. The physician must secure a very complete history, even going back to the ancestry of the defendant to determine any mental trends, diseases, or disorders in the family tree. He must secure information concerning the birth of the person; his infancy, any facts having to do with abnormalities of birth; delayed development as demonstrated in delayed walking or talking; any serious diseases from which the patient suffered in infancy. He must rather clearly distinguish the amount of schooling the patient received, his adjustment to school life, subjects in which he excelled, his general information acquired since leaving school, his general reaction to his environment up to the time of the commission of the crime, as well as his adjustmejnt to society and to business or to his profession. He should determine the reaction of the patient to the facts relative to the commission of the crime and to the events immediately subsequent to the commission of the crime. Did the prisoner or patient plan the crime with any degree of intelligence; was the plan reasonably successfully carried out; after the crime was committed, was a reasonable attempt made to conceal the crime; did the patient attempt to evade arrest and conceal himself from the police, and did he attempt to escape? What was his attitude at the time of arrest and since his confinement; his philosophy` of life relative to the commission of the crime, the value of property, sacredness of person? The presence of delusions or hallucinations, if found, should be carefully analyzed to determine if there is any relationship between such delusions and hallucinations and the crime committed. Does the prisoner have sufficient memory, recent and remote, to remember reasonable events, both before and after the time the crime was committed; is he sly in his attitude toward the physician, and does he attempt to conceal pertinent facts relative to the crime for the purpose of exonerating himself from blame?

PROCEDURE WHEN IT IS CLAIMED A PERSON IS INSANE

In the State of California physicians are concerned with another phase of the term "insanity" and its implications as applied to persons suffering with mental disorders. A person may be found in his home to be suffering with a disorder of mind that in the opinion of his relatives or neighbors makes him dangerous to be at large. When such is true, the interested person proceeds to the office of the district attorney where an affidavit is filed in which the offending party is alleged to be insane. The affidavit must definitely state that there is a degree of mental unsoundness to an extent as to endanger the life of the person concerned; the lives of his immediate associates or members of his family, and that the person so concerned is also a menace to property. Under such conditions, the court of proper jurisdiction issues a "warrant of apprehension," and when such warrant is issued, it is placed in the hands of a police officer or a deputy sheriff, who calls at the home of the patient and takes him into custody, and delivers such a patient to a place of detention—the county jail, a room in a county hospital or, in the larger counties, the psychopathic ward, where he is held for a period of observation.

Shortly after his delivery to the psychopathic ward or some other place of detention, it is necessary under the present court procedure in this state, to "arraign" the prisoner. The judge appears before the patient or the "prisoner" so confined, and reads to him the affidavit, or makes a statement containing the pertinent facts contained in the affidavit, and indicates to him that the time for hearing is set for a given future date; that he may have the benefit of counsel; that he may have witnesses subpoenaed who will be required to testify in his behalf. He is also informed that if he is found to be insane and committed to a state hospital, he may have the right to appeal, provided the appeal is made within five days after such commitment, at which time his case will be tried in the Superior Court in the presence of a jury who will determine, on the basis of his appeal, whether or not he is insane. It is the experience of all persons who have to do with the detention of patients charged under such warrants, that not infrequently the judge makes this formal statement to patients who are in the midst of manic excitement from many of the various psychoses from which they suffer, or who are so confused in mind as to be unable to distinguish their location or the persons surrounding them, and in some cases they are even unable to determine their own identity. On the date set for hearing, such persons are personally brought into court and in the presence of witnesses, who may be loved ones and neighbors, the court hears the testimony relative to the mental disorder from which the patient suffers, particularly the erratic behavior, if such be present, or peculiarities manifested to these interested friends and neighbors who have led to the issuance of the warrant. The court appoints two physicians who may or may not be psychiatrists to hear such testimony, and in the presence of the court these physicians prepare a blank which is required by the state hospital service covering pertinent facts pertaining to the history and mental examinations. After a very short period of observation and with the testimony in their minds, these two physicians are expected to recommend to the judge concerning the sanity of the person concerned, and as to whether or not he should be committed to a state hospital. The judge is not bound to follow these recommendations, but may determine individually as to the disposition of the case. However, under ordinary conditions, he accepts the recommendations of the two physicians appointed, and if the recommendation is commitment, the patient is committed. The judge may also, in his discretion, discharge the patient from further custody of the court, even though the person has a well marked psychosis, but is not shown to be a menace to other persons or property.

CRITICISM OF THE PRESENT LAW OF COMMITMENTS

This procedure has come to be known in loose language as "a finding in medical insanity." The law under which such commitments are made, with certain modifications and amendments, dates back to more than half a century. Modern thought is in favor of doing away with this apparent criminal approach to persons long recognized as suffering from a mental illness. The present law does not presume to take into consideration the simple fact that the person under consideration is suffering with a mental disorder and requires institutional care, unless it is found that such a person, by virtue of behavior already shown, becomes a community menace. Attempts have been made to modify the law to permit a more scientific approach with the simplification of court machinery to permit the admission of mentally sick individuals to state hospitals without the stigma that is always incidental to such court action.

DEVELOPMENT OF PSYCHOSIS SUBSEQUENT TO COMMISSION OF A CRIME

Between the time of the commission of a crime and the date of trial, a patient confined in a prison awaiting trial may develop a psychosis. If such is found to be true, the court orders a hearing to be conducted under conditions similar to those of a civil commitment just described. If the prisoner is found to be insane, but it is determined that his insanity has no relationship to the time of the commission of the crime charged, he is sent to a state hospital where he remains until his mental condition is sufficiently recovered so that he may be discharged. It is a requirement of law that when such a person is discharged from the state hospital, he must be returned to the sheriff of the county of original jurisdiction, and the district attorney is required to proceed to prosecute the case under the original indictment which refers to the crime committed. The fact that he has been a patient in a state hospital does not have any bearing upon the case if it is at this time shown that the patient was responsible at the time of the commission of the crime.

THE TERM "PSYCHOSIS," FROM THE MEDICAL AND LEGAL POINTS OF VIEW

The term "psychosis" now has a modern usage to indicate the presence of a mental disease, and is used to define a mental disorder of a functional type or one organic in origin. It is used in the practice of medicine by physicians who are careful of their language and properly by psychiatrists in discussing mental diseases, and has no relationship whatever to the legal aspects in any given case. The term itself does not take into account menace to property or person, nor does it have any relationship to responsibility to the law or the ability on the part of the patient to distinguish between right and wrong. The classification of the American Psychiatric Association should be the basis of all findings in the practice of medicine by psychiatrists in dealing with mental patients. If this terminology is used, it will tend to eliminate from our ordinary work the use of the term "insanity," which has no connection or relationship whatever to the term "psychosis," and it will enable the intelligent physician to properly distinguish and label the presence of mental diseases without the use of this term.

ETHICS RELATING TO EXPERT TESTIMONY OF ALIENISTS

Psychometric tests as such are not required to be covered in the testimony of alienists, but are important in their hands to assist in decisions relative to responsibility. Even in the presence of a mental disorder under our present court procedure, insanity as a defense for crime may not be shown. An alienist who is retained by either side in a case involving the commission of a crime should accept a retainer only for the purpose of making an examination of the prisoner, after which he should render a report to the attorney who arranged for such examination. He should draw his conclusion quite independently of any interests the counsel for the defendant may have in his examination. If he is retained by the prosecution and after a complete investigation has been made, concludes that the patient is not insane, he may then properly agree to testify for the prosecution. If, on the other hand, he finds that the patient is insane, he is similarly bound to make such a report to the prosecution and to state his position clearly when, under ordinary conditions, he will not be permitted to testify for that side. He should not, according to professional ethics, testify in opposition to the side for which he made his original examination. The literature contains many opposing decisions relative to this particular matter, but it is generally agreed that "to require a physician to render expert testimony without proper compensation would, in the last analysis, be antisocial." It is also considered that a reputable attorney dealing with a reputable physician would not arrange for testimony to be given by such a physician if he had been retained by the counsel for the opposing side and for whom the original examination was made, even though his testimony were not used by the side that originally retained him.

ATTITUDE IN COURT OF PHYSICIAN WHO TESTIFIES

A physician should not be concerned with the ultimate guilt or innocence of the prisoner examined. He should assume the attitude that his information has been acquired in a legitimate manner, and he is coming into court having been properly retained to give expert opinion for the benefit of the court and jury in order that findings of justice to the prisoner may be made. An alienist should never appear in court without having carefully prepared his case. He should not only know the case at hand, but he should be familiar with the literature, both medical and legal, governing such cases, and as it applies to conditions under which he is working. He should assume a neutral attitude, being truthful in his answers, and sincere and impartial in his testimony and the deductions made from the testimony. Only under such conditions may alienists expect to demand and retain the respect which is due them as expert witnesses in criminal cases where insanity is an issue.

Highland Hospital.

DISCUSSION

Walter Rapaport, M.D. (Napa State Hospital, Imola). I wish to add my word of approval for the elimination of the word "insanity" from medical diction and the relegation of that term entirely to legal terminology. I never use it in a medical sense, in or out of court, and that fact alone has saved me the embarrassment of quibbling over so-called medical and legal insanity.

One phase of the question of insanity has not been touched upon by Doctor Black, and that is when the question arises after arraignment and before the termination of the trial. If it appears to the court, either by suggestion of counsel or by any other means, that a defendant has not sufficient mental capacity to proceed with his defense, the court interrupts the trial and directs an inquiry into the mental capacity of the accused. In that case the requirements are a little different from that in the issue of insanity regarding the defense.

The question of the last aforementioned instance is not whether the accused is suffering from a mental disease, but whether or not the accused has sufficient mental capacity to understand what is going on, and to assist his counsel in the conduct of his defense.

While it is true that the mere showing of the presence of mental deficiency is not a defense to crime, yet here, as in all other questions of criminal procedure, the question of intent is relevant. Therefore, if the mental age of the individual is so low that he would not be able, by reason thereof, to form an intent, then it would be material as a defense. In many states it has been decided that the mental age of seven years is the dividing line below which the assumption is that the accused would not have sufficient intelligence to form an intent.

When a showing is made that a psychosis has been developed subsequent to conviction, the individual may be treated in the prison or sent to a state hospital for the insane for treatment. If he should recover before the expiration of his sentence, he is returned to the prison for completion of his sentence. If he does not recover prior to the completion of his sentence, his status changes at the termination of his sentence to that of an ordinarily committed insane person. If the sentence is capital punishment, and the individual develops a psychosis before the sentence is carried out, the sentence is stayed until he recovers. He may, during this time, be kept at the prison or be sent to a state hospital for the insane, to be returned as before mentioned.

The question of the relationship between a person suffering from mental disease and the making of contracts is also a pertinent one, but does not concern us in the present discussion.

The expert frequently invites undeserved condemnation because of his lack of understanding of what is required of him. I have heard it said that a medical expert should confine himself to medicine and disregard all else.

To follow this advice implicitly leads to trouble, because it permits of much speculation and theorization; all permissible and commendable in medicine, but in the court it frequently only adds confusion. The court is interested only in the case at bar. It is not interested in what might happen in many and divers situations, but what it can reasonably be supposed did happen in the present situation. The court sets out what the law is, and what the law requires and expects. The expert should confine himself to these restrictions and attempt, if possible, to give his best judgment in the matter. The fact that the expert does not feel that the law is correct is not his problem in court. If he is interested in espousing his theories and speculations of what the law should be, he should do so before the legislature and not during his appearance in court.

It is conceded that certain peculiarities and even frank psychoses might be present in the accused. But in a plea of not guilty by reason of insanity, that is not the point at issue. Doctor Black has told you what the points at issue are; and, unless these peculiarities or psychotic manifestations are such as to meet the legal requirements of insanity, opinions on that score are immaterial and inconsequential, and if indulged in by the witness only befuddle and confuse the issue and bring contempt on the expert.

The issue of peculiarities or psychotic manifestations are material during the trial if, by reason of them, the accused cannot conduct his defense; or if, after conviction, the accused is found to be suffering from a psychosis, he may be directed to an institution for the treatment of his mental condition without disturbing the issue of guilt or innocence.

There is an element of law enforcement to which all should contribute their efforts, and it is not the duty nor the right of an expert to interject immaterial, speculative, or highly improbable opinions with the view that, by giving such opinions, he might help his client or give voice to his disapproval of existing jurisprudence.

Undoubtedly, there is much in medical jurisprudence that could be improved upon to the benefit of all concerned, and it would be, perhaps, an excellent move if this section were to have a standing and permanent committee whose duty it should be to study the problem to the end that better legislative action could be had. But the courtroom, at the time of a trial, is not the place nor the time for such activity.

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J. M. Scanland, M. D. (Agnew State Hospital, Agnew).—The subject of psychiatry and the law is one in which we are especially interested. We of our specialty are frequently "ordered" to give expert testimony in superior courts as psychiatrists, when the plea of "Not guilty by reason of insanity" has been entered as defense for crime, and in other cases in which the subject of insanity is an issue.

I agree with Doctor Black that the term "psychosis" is far preferable to that of insanity, and think we should school ourselves in the use of the more dignified and professional expression. To an extent, too, as Doctor Black has so well said, the use of the word "psychosis" rather than "insanity" might bring to juries and courts a better understanding of our conception of medico-legal responsibilities. However, it is likely that clever lawyers would soon come to define the term "psychosis" as it may apply to the subject of expert medical testimony to be much, if not quite the same, as is the present interpretation by the courts of the legal meaning of insanity.

Doctor Black, in his article, has referred to an interpretation and explanation of the laws of California by a Superior Court judge in a written summarization prepared for the guidance of medical witnesses in procedures in which insanity is a question, and in which it is clearly set forth that "the only test of insanity which is recognized in criminal cases is the right and wrong test."

The State Supreme Court has more than once ruled on the subject of such evidence, and states in an opinion of a certain case:

"Responsibility depends on whether the defendant knew the nature and quality of the act at the time of its commission, and the wrongfulness of the act. If he had sufficient mental capacity to know what he was doing, and to know that it was wrong, he is legally accountable for his act. Even though he may be mentally abnormal or defective, or may suffer from some nervous disorder, he is, under our law, held to full responsibility for his act unless the evidence brings him within the strict legal meaning of insanity."

This then is the law, and certainly it is not within our province, nor is it our intention or desire to question an opinion from such a source.

Another law, however, if added to the statutes of the State would, in my opinion, simplify and probably clarify this problem of psychiatric expert testimony. I have in mind and suggest an amendment of an existing law providing that Superior Court judges in cases in which defendants have pleaded "Not guilty by reason of insanity," appoint medical commissions as is now provided, adding a mandate to the effect that no other medical testimony be admissible.

An objection might be raised to this that such an act would be discriminatory, and therefore unconstitutional; but it would seem to me that Superior Court judges should have this latitude and authority in such cases, and that legislation to this effect could be created in a manner that would be constitutional.

Or, a law might be passed in this State similar to those in effect in other states, making provision that the Superior Court judges in cases wherein insanity is entered as defense be empowered to order the defendant confined in a state hospital for a period of not less than thirty nor more than sixty days for an examination by the superintendents and medical staffs of state hospitals, who will be required to give an opinion to the court as to the sanity or insanity of defendant at the time of the commission of the crime.

The statute now in effect provides that in such cases the Superior Court judge presiding must appoint two or more physicians to "examine defendant and otherwise inform themselves concerning his mental condition." In accordance with the provisions of this statute, Section 1027 of the Penal Code of California, the judge orders these alienists by him appointed to "examine the said defendant and investigate his sanity and to testify in court in reference thereto." Under this law both attorneys for the defendant and attorneys for the State may question, and cross-question, and examine the medical experts as freely as may the judge.

It would surely seem that this procedure should bring out all the worthwhile expert testimony necessary to the case on trial, and is a fair and just and comprehensive presentation of expert medical evidence.

If then, as above suggested, no other medical testimony be permitted in such cases, and if no other alienists be called by attorneys for the people, the ends of justice would be better served. How often have we seen a doctor or group of doctors offering expert testimony on one side of a case in court, and another or more doctors on the other, each side earnestly testifying to opinions, and even that which they profess to believe to be facts, that are entirely different one from the other; and it seems equally ridiculous that a jury of laymen may be expected to pick and choose between experts who testify to conflicting opinions. And if experts cannot agree, certainly juries cannot be expected to agree.

This imposition on the public and on our profession could, I believe, be remedied by the enactment of a short statutory provision as above suggested.

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Margaret H. Smyth, M. D. (Medical Director and Superintendent of Stockton State Hospital, Stockton).—Psychiatry and the law have been running on parallel lines for a long time, but the indications seem to be that the lines are changing their direction and fusing into better comprehension of the two viewpoints in so far that both lawyers and medical men show a dissatisfaction with present meaning and procedure.

The term "insanity," to which blind custom and habit seem to have given a fixed place in legal and medical diction, possibly has had a legitimate excuse for being when first formulated, which the title of Doctor Black's paper points out. The legal side of psychiatry is certainly an important one, and especially so from the standpoint of responsibility.

A person suffering from a serious mental disorder is sent to a state hospital unless he has private means to be cared for elsewhere. In case a commitment is considered, legal procedure becomes necessary. The procedure in this and in many of our states could be changed in some respects with considerable benefit to the patient. It is encouraging to see better and more widespread understanding of modern psychiatry in the past several years, with psychiatric wards provided in many of our county hospitals and with deputies endeavoring to improve their methods in conveying their charges to the hospitals. A mental patient arrives at the hospital in a far more comfortable state than was true some ten or fifteen years ago, at which time a large number arrived in full restraint, fearful and uncomfortable.

The law now offers voluntary admission of patients on written request to the superintendent of the hospital. This law is being taken advantage of to such an extent that at the present time the six state hospitals in California have under care for treatment ond observation 504 voluntary patients. This plainly shows the course a mental patient with some insight will follow if medical aid is offered, and without the necessity of resorting to legal measures for admission to a hospital giving the patient the benefit of early treatment for his particular illness.

As for a trial by jury when required to determine sanity or insanity of a defendant, when the time comes for a medical man to ask the opinion of a jury as to whether a patient is suffering from chicken pox or smallpox, the psychiatrist may then hope to request a jury to sit on a case of dementia praecox or paresis. However, it is for the determination of sanity or insanity that the jury is called. The jury gleans its information from witnesses and the testimony given by physicians appointed by the judge of the court or called on the case. One cannot be too critical of the findings of the jury of inexperienced men when, in certain instances, the medical experts themselves disagree as to the diagnosis in the individual's case.

Psychiatry, I believe, is one of the most important branches of medicine, and I am in agreement with Doctor Black's statement that the classification of the American Psychiatric Association should be the basis of all findings in the practice of medicine by psychiatrists in dealing with mental patients.

FRESNO COUNTY PART-PAY PLAN*

By H. M. Ginsburg, M.D.
Fresno

Discussion *by A. E. Anderson, M.D., Fresno; John Hunt Shephard, M.D., San Jose; Charles A. Dukes, M.D., Oakland.*

A BRIEF summary of the Fresno County part-pay plan is submitted to show number of cases and results between July 7, 1933 (the date of its inauguration), and December 1, 1935. The plan was slow in its showing, due, first to a lack of medical social service workers, and, second, the fact that the plan was new and workers were reluctant to refer cases with small fees. The medical social service department, under the supervision of trained medical social workers, was not established in the General Hospital until October 1, 1934, and yet, as will be seen in the statistical report, it is a vital factor in the working of the plan.

HOW THE FRESNO PLAN FUNCTIONS

The plan has been outlined previously and, briefly, functions as follows: The medical social service department, located at the General Hospital, after interviewing patients, rates them into one of three classes. The first class (well-to-do) and third class (indigents) are cared for by their private physicians and General Hospital, respectively. The second class is rated according to its illness and ability to pay, and is referred to its physician of choice, or physician selected by rotation, with case history (financial and social) which specifies the amount patient is able to pay for the treatment. The physicians selected by rotation are taken from a panel supplied by the Fresno County Medical Society. The physicians on this panel have agreed to accept the recommendations of the medical social service department and, in case of doubt, the patient can be referred back for a second social report. It was felt that in a community the size of Fresno County, where three-fourths of the physicians are located in the city of Fresno, it would be better to have the patient report to the medical social service department and then be referred to the physicians, rather than have physicians interview the patients first and then send them to the service department to determine financial status. In this manner the physicians are not called upon to treat indigents in the home when they should be cared for at the county institution. The coöperation of the medical profession is essential to the proper working of the plan.

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* From the Directors' Department of the General Hospital of Fresno County.

REPORT ON 588 CASES

From August 7, 1933, to October 1, 1935 (previous to establishment of the medical social service department) 149 cases were referred to private physicians. With the establishment of the department there have been referred, from October 1, 1934, to December 1, 1935, a total of 439 cases. This points out the value of trained workers. The total for the plan is 588 cases, divided as illustrated in Chart 1.

COMMENT

These cases do not figure the return visits made. If we assume that each patient returned on an average of three to four times, it would swell the visits made to about two thousand.

In all cases the medical social service department impresses the patients that their services must be for a cash consideration, and in the majority of cases it has so worked. Classified among the regular or full-fee office cases are major and minor surgical cases which have not been enumerated. The hospitals in this county, whenever necessary, have modified their rates according to request of medical social workers.

The patients have been satisfied, and repeatedly have expressed themselves as happy over the fact that they are able to secure private care at moderate rates. It is felt that the plan will show better results in the future.

The panel of physicians, when first compiled, was segregated as to surgeons, gynecologists, urologists, etc. It was found, after one year's experience, that it was better to have one straight panel, without divided specialties, and if a physician did not care for a particular type of case he could refer it to another physician of his group, or the medical social department would contact another physician.

General Hospital of Fresno County.

Chart 1.—*Fresno County Part-Pay Plan: Distribution Chart*

August 7, 1933, to December 1, 1935

Type of Case	Amount Payable	Number of Cases
Obstetrical	$35.00	2
	25.00	31
	20.00	4
Circumcision	15.00	3
	5.00	1
Tonsils, Adenoids and Circumcision	30.00	1
	25.00	1
	20.00	1
Tonsils-Adenoids	25.00	7
	20.00	8
	15.00	42
	10.00	38
	7.50	1
Office visits (Includes major and minor surgical cases listed in regular fee)	Regular or full fee	164
	50c per call	2
	75c per call	6
	1.00 per call	88
	1.50 per call	124
	2.00 per call	27
	2.50 per call	9
	3.00 per call	1
	4.00 per call	1
Dentist	Full fee	5
Shelter camp		2
Other counties		19
Total		588

DISCUSSION

A. E. Anderson, M. D. (1759 Fulton Street, Fresno).—The Fresno County Part-Pay Plan is an adaptation of the Alameda plan. It differs from the Alameda plan in that the patient first sees the social service worker instead of being referred by the physician to the social service.

The Fresno County Medical Society, conferring with the County Board of Supervisors, secured the adoption of this method of providing medical service for patients unable to pay the usual fees, but not in the indigent class, early in 1933. Until a trained social service worker was provided October 1, 1934, only a negligible number of patients were referred to physicians under this plan. During the period from October 1, 1934, to December 1, 1935, a total of 439 cases were referred, showing a very gratifying increase in the use of this service.

The social service work is done by one trained and two untrained members of this department at the County Hospital. The admissions to the hospital for the year 1935 were 7,100, and to the out-clinic 6,200. The investigation of this great number of patients is necessarily inadequate, and could be improved by additional workers.

Only occasionally can hospital facilities at private hospitals be arranged for under this plan. The Social Service Department emphasizes the need of prepaid hospital service in order to make this plan really effective. The lack of cash to pay the private hospital is a very frequent reason for admission as a charity case, when the patient states he can arrange for the medical services needed. The doctor is willing to take a chance on future payment for his services, but the patient, unable to pay the private hospital, is classed with the indigents, and so admitted.

Some seventy members of the Fresno County Medical Society have agreed to take care of these patients at whatever fee they can pay.

There are no definite or fixed rules for determining eligibility for this service. The social service tries to ascertain the personal need and inability to provide needed care by a private physician or at a private hospital.

My impressions lead me to the conclusion that in order to make this plan most useful, especially in cases of serious illness, we must have other hospital facility arrangements such as could be provided by hospital insurance.

John Hunt Shephard, M. D. (609 Medico-Dental Building, San Jose).—The report of Dr. H. M. Ginsburg on the operation of the Fresno County Part-Pay Plan furnishes some valuable food for thought.

One of the chief things that impressed me when I read the report is the fact that 164 of the 588 patients (27.88 per cent) investigated by the Social Service Department, were not entitled to receive services at reduced fees. While 588 cases is too small a number upon which to base definite conclusions, it becomes a very significant factor when considered from the viewpoint of health insurance. This 27.88 per cent may justly be considered chiselers, attempting to get something to which they are not entitled. It is interesting that this percentage of chiselers very closely corresponds to the abuse found in some of the European health services, and consequently, if and when any form of health insurance is adopted in this country, there must be added to the estimated cost 25 or 30 per cent to cover the abuse of privileges in one form or another.

While it appears that the fees received for much of the work is near or below the cost level to the doctor, the fact that these patients have been saved their self-respect and prevented from becoming patrons of public charity is of great value, for when a person once receives public charity in any form he is very apt to become a permanent dependent member of society and a supporter of the various types of "give me" legislation.

I believe that the doctors in Fresno County, in caring for this economically embarrassed group, are acting in accordance with the ideals of medicine, and will help many persons maintain their independent existence and pride of citizenship. Furthermore, such experiments definitely deny the accusation of many social economists who are claiming that the medical profession is giving no thought to, nor attempting to solve the problem of the unpredictable, indeterminable cost of illness.

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Charles A. Dukes, M. D. (426 Seventeenth Street, Oakland).—The indigent, the near-indigent, and the patient who can pay a reasonable sum for medical and hospital care is the usual problem for every county in the care of the sick. When periods of depression appear the division between the indigent and near-indigent becomes very narrow.

I am doubtful of the wisdom of establishing a fee bill for the near-indigent, believing it is better to ascertain the financial status of each case and make the fee accordingly.

The distribution of the patients must be fair, and probably can be carried out geographically and alphabetically to the satisfaction of all. In Alameda County this plan of distribution of cases is being used.

Would it not be well to avoid the use of the title "Part-Pay Plan" and substitute "Medical Service" for work done for people of limited means?

FRACTURES OF BOTH BONES OF THE ARM OR LEG—THEIR MANAGEMENT*

By E. W. Cleary, M.D.
San Francisco

Discussion *by Arthur L. Fisher, M. D., San Francisco; Harold E. Crowe, M. D., Los Angeles; H. W. Spiers, M. D., Los Angeles.*

THE object of this paper is to discuss fractures of the forearm and leg bones from the viewpoint of the application of traction, and to present certain mechanical devices which have been found helpful in caring for such fractures.

The fracture problem has changed since the machine-age reached its heyday. The automobile has been characterized the greatest killer that man has yet invented. By the same token it leads the field in shattering, tearing, pulping and excessively contaminated injuries to the arms and legs. Such severe injuries are now produced at every corner and crossroads, and in the remotest regions where the automobile goes.

Changes in a problem predicate changes in methods for its solution. Every doctor now needs effective fracture equipment, which must include mechanical devices for traction and immobilization.

Certainly many cases of fracture may be effectively treated without the use of such mechanical devices, and should be so treated. The simplest effective method remains the method of choice. Some may deprecate the suggestion that an average doctor in an ordinary environment should use transfixion wire traction methods. It would appear, however, that the wide use of such methods, though not without hazard, would, on the whole, be less dangerous to the patient with severe complicated fractures, than the alternative of delayed or ineffective treatment.

IMPORTANCE OF EARLY REDUCTION AND EFFECTIVE IMMOBILIZATION

Reduction and effective immobilization at the earliest possible moment, particularly of compound or extensively comminuted fractures, are of signal importance. It was the French who, during the World War, emphasized the importance of early attention to dirty wounds by characterizing the first ten hours following the injury as the period of contamination, and the succeeding interval as the period of infection. Special effort should be made to complete cleansing, reduction and immobilization of compound fractures within the period before active infection has begun. Many, thus treated, get well with only an insignificant local reaction. Simple, easily available devices help to shorten the period of adjustment of the fracture, and to start it securely on the road to recovery before valuable time has been lost.

TRACTION IS INDISPENSABLE

Traction, in some form or other, is indispensable. Other things being equal, effectiveness of traction depends upon the method of application. Manual traction is sharply limited, is inexact and inconstant. Surface traction by means of mechanical devices is a step in advance sufficient to meet many needs. Maximum control and precision are attained by skeletal traction where the force is applied directly to bone at the points of traction and countertraction, and when both these points are hooked up to a rigid base of support.

The number and variety of rigid base traction devices is legion. Many new machines have recently appeared. Complexity and expensiveness tend to defeat the purpose of most of them. The desideratum is effective and inexpensive machines, convenient to carry and easy to set up, without elaborate mechanisms to get out of order; machines that are light and that get in the doctor's and the patient's way as little as may be.

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* Read before the General Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

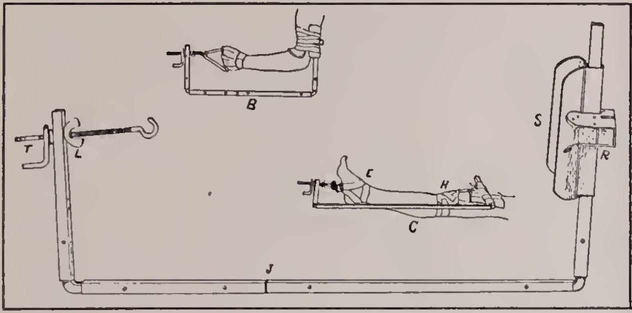

Fig. 1

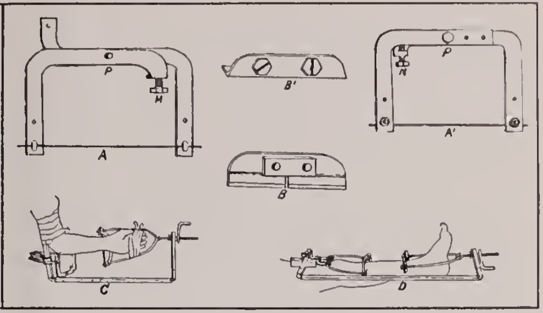

Fig. 2

Fig. 1.—Traction bar assembly; *S*, shield plate, reversible by use of bar channel *R*, for leg fractures; *T*, traction screw, lock nut *L*, when tightened, holds desired rotation; *B*, applied for closed reduction of forearm fracture—short adhesive holds hand closed; *C*, closed reduction leg fracture; *E*, ankle strap removable from under cast; *H*, knee strap.

Fig. 2.—*A*, self-tensing stirrups; *A'* hinge on bolt *P* and tense wire by tightening screw *M*; *BB'* retaining clamp, put on each end of wire; outside cast made snug to cast by bits of wet plaster bandage; stirrups off when cast hardens; *C*, transfixion wire traction on forearm; *D*, on the leg; bar not in the way of fluoroscopy; traction may be applied during operation. Entire assembly easily sterilized for operating.

AUTHOR'S TRACTION BAR AND TRACTION FRAME

Seeking such efficiency led the writer to devise a traction bar and a traction frame with some simple accessories. The previously devised appliances of so many men formed the background of the writer's efforts that it is not practicable in this limited time and space to mention their names. As the traction bar has been fully described in an article in California and Western Medicine for May, 1935, and as the frame has been illustrated and discussed in the April, 1935 number of the *Journal of Bone and Joint Surgery*, detailed description of these devices will be omitted here.

Traction Bar and Its Application for Closed Reductions.—This traction bar and its application for closed reductions is shown in Fig. 1. Through its use powerful traction may be temporarily applied. It holds the reduced fracture, while affording accessibility for fluoroscopy and for the application of plaster or other immobilizing splint. Short adhesive straps, holding the fingers flexed, are easily removed after plaster has been applied distally down to the wrist. The special ankle and knee straps will slip from under the ends of plaster extended far enough to temporarily hold the fractures. Plaster is extended proximally and distally after removal of these traction straps.

This bar may be hooked up for transfixion wire traction through self-tensing stirrups with bridles as shown in Fig. 2. After fluoroscopy or x-ray to check reduction, plaster should be applied, the wires supported in tension against the cast by clamps, and the bar and stirrups removed. The wire retaining clamp is a rectangular steel plate, 3/4 inch by 2 inches by 3/16 inch thick, slotted for the wire and provided with a wire-locking screw. The use of such clamps widely extends the field of usefulness of small transfixion wire because the clamps hold the wire under tension in the cast. We are all aware, I trust, of the limitations of fracture operating tables which do not put control of traction and rotation in the hands of the surgeon in his field of operation.

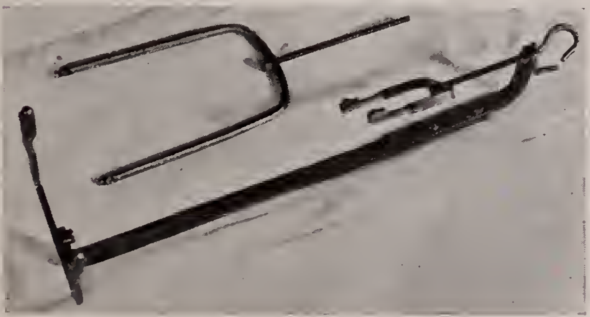

Fig. 3.—Special small traction bar and stirrups adapted for traction during operations.

The very small light traction bar, Fig. 3, is adapted for traction during operation only. It is useful when doing open reductions, correction of deformities or grafts for malunions. The device brings control of traction and rotation completely within the aseptic field of operation. It has also been helpful in open reductions of badly comminuted and displaced supracondylar fractures of the humerus involving the elbow joint. Special tension on wires is unnecessary for temporary traction during operation, provided stirrups of narrow span are used. The precision with which a fracture may be held by transfixion wires hooked up to this small bar is in pleasing contrast to the clumsiness and uncertainty of bone-holding or grasping forceps.

Traction Frame for More Difficult Fractures.—For the care of the most difficult fractures, the traction frame shown in Fig. 4 provides the desired mechanical aid, and does not get in the way so much or hit the pocketbook so hard as the heavier and more elaborate devices. Every range of adjustment in length, angulation or rotation that a fracture frame can deliver, using one wire for traction and another for countertraction, is practicable using this device. A high degree of lightness and adaptability has been obtained by using the simplest form of horseshoe stirrups, and making the proximal stirrup a part of the frame. The compression tongs, used to compress

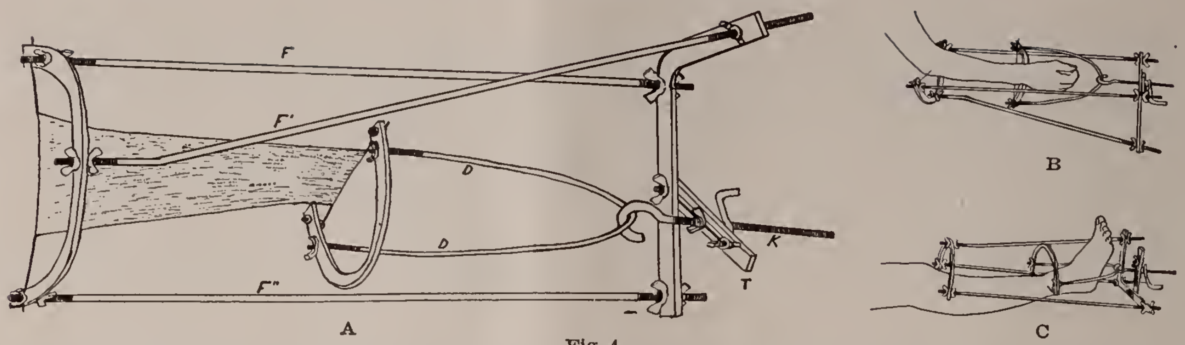

Fig. 4

Fig. 4.—*A*, traction frame. Note possibilities for adjustment: (1) At either ends of bars *F*, *F'*, *F"* and bridle *D*. (2) Radial and vertical by slotted post *T*. (3) Rotation by traction screw *K*. *B*, frame applied to fractures of forearm. *C*, frame applied to fractures of the leg.

the stirrup before hooking up to the wire, are shown in Fig. 5.

No two-wire system can completely control the distorting tendencies of unbalanced muscular and ligamentous stresses. When angulation due to such causes is discovered after a cast has been applied incorporating the transfixion wires under tension, the alignment is usually easy to correct either by simple wedging of the cast or by the use of a turnbuckle. Once only in the writer's experience, following wedging a cast three weeks after the wires had been put in, infection occurred at one end of one wire. In my opinion the change in stress on that wire allowed superficial infection on the surface to penetrate into the bone along the wire channel. Since this experience, we have avoided making any radical change in stress upon any wire that has been in place for any considerable time.

Use in Forearm Cases.—In forearm cases the proximal wire is usually put through the ulna about an inch below the tip of the olecranon. The lower wire enters the radius at a point at the junction of the flexor and radial surfaces about one and one-half inches proximal to the tip of the radial styloid, and is directed so as to emerge on the dorsal surface near the ulnar shaft. It does not interfere at all with rotation. The points of insertion and emergence are dressed with very small gauze squares slipped over the wires.

Fracture of Both Bones of the Forearm.—A fracture of both bones of the forearm, which was brought to the author ten days after injury, after the failure of many attempts at closed reduction and final failure of an elaborate effort at nonskeletal traction, is shown in Fig. 6. This fracture was reduced in the traction frame. The result is shown in Fig. 7.

Wire is much less likely to cause infection or ring sequestration than a large pin. Transfixion wire, which is too small, breaks. In one instance, .054 wire held for nearly eight weeks but broke before removal.

We now use .0625 oil-tempered spring steel wire and have had no trouble with breaking. Wires are cut from the stock of oil-tempered spring steel, using a Scholhorn type, compound leverage wire-cutting plier. A few strokes with a fine mill file provide a three-faceted trocar point which penetrates the hardest bone easily. A light mechanic's drill has been adapted for wires by extending the hole through the chuck and handle. No guide has been found necessary. Wire clamps, which hold the wire under tension against a cast, have greatly increased the adaptability of small transfixion wire.

IN CONCLUSION

It has been the intent to show that these simple mechanical devices for traction can be of great assistance in both closed and open reductions, and to, in a measure, "debunk" the idea that elaborate and expensive appliances are essential to transfixion wire traction. It is believed that

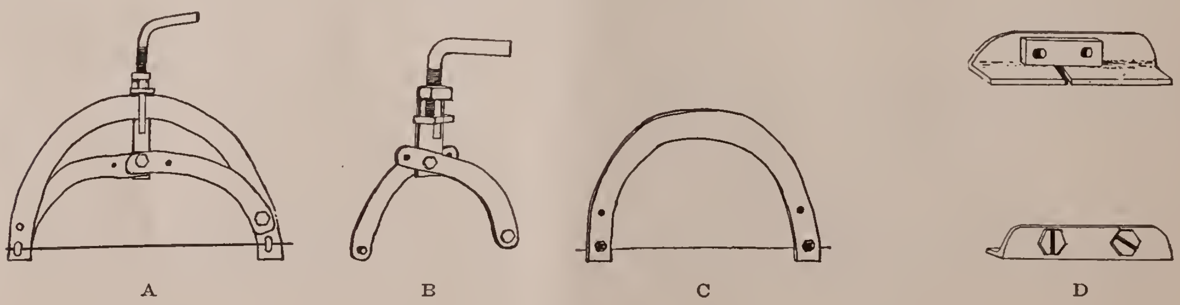

Fig. 5

Fig. 5.*—*A*, stirrup and compressor tongs. *B*, compressor tongs. *C*, stirrup tightened on wire, tongs removed. *D*, retaining clamp. After cast is on, a clamp is put on either end of each wire. Small bits of plaster bandage are used to make snug the bearing surface of clamp on cast. Stirrups may be removed as soon as cast hardens.

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* The improved retaining clamp is not illustrated.

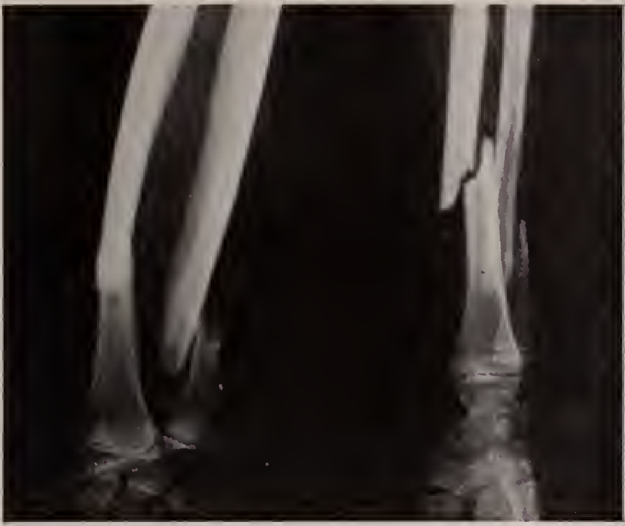

Fig. 6.—Fractures of forearm bones, ten days' duration, after repeated failure to secure reduction.

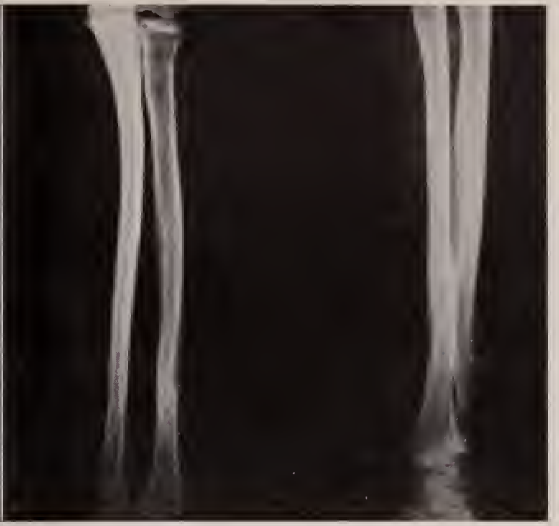

Fig. 7.—Result after reduction in the traction frame.

this effort is justifiable because difficult fracture problems occur wherever there are doctors, and because many doctors have been deterred from providing themselves with effective equipment due to expense, elaboration and mysterious difficulties which have been supposed to be attendant upon the use of skeletal traction, and particularly of small transfixion wire under tension.

The necessity for the exercise of discrimination and judgment in using skeletal traction is not minimized. Introduction of even the smallest wire compounds the fracture at that point, and the writer believes that no fracture should be compounded if it can be effectively dealt with by closed reduction. It is gratifying, therefore, in discussing skeletal traction at such length, to have presented also a device (the traction bar, Fig. 1) for facilitating closed reductions.

The devices presented have been a matter of gradual development and have undergone many changes. Doubtless they are still amenable to much improvement. Having found them helpful we hope that some others may find them worthwhile.

490 Post Street.

DISCUSSION

Arthur L. Fisher, M. D. (2000 Van Ness Avenue, San Francisco).—Whenever and wherever traction is necessary, the simpler the device the better. This apparatus of Doctor Cleary's is simple and has several features that seem to me to add to its utility. I was particularly struck by the bar that controls supination and pronation in cases of forearm fracture. This, I think, is a very great advantage. Many forearm and elbow fractures may be set with due regard to the position of the bones themselves, *i. e.,* getting end-on apposition, but with no regard paid to supination and pronation. In such cases frequently there is a pronation contracture by the time the fracture is healed.

I am not one of those who feel that every patient who has a fracture must be transfixed with pins in order that the fracture be well set. I think that at the present time there is too much transfixion of bones by means of pins, etc., and that too many surgeons take liberties with other people's bones.

There are instances, however, when this type of treatment is absolutely essential, and I think that this apparatus devised by Doctor Cleary is as good as any and, particularly for forearm fractures, is better than most devised. Its advantages consist in its lightness, its ease of applicability, and the facility with which changes in position can be made.

* * *

Harold E. Crowe, M. D. (2417 South Hope Street, Los Angeles).—It is a pleasure to discuss Doctor Cleary's paper regarding skeletal traction: first, because he has succeeded in simplifying and reducing the cost of apparatus for the application of transfixion-wire traction, and, second, because he has so generously admitted that this field should be open to the medical man faced with a difficult fracture, even though he may be located at the crossroads and not accustomed to call himself a specialist in bone surgery.

Experience with transfixion-wire traction has led me to believe that the introduction of wires is almost comparable to giving a hypodermic injection, since I have seen remarkably gross errors made while attempts at pin traction were in progress, without any unfortunate results. For instance, on several occasions as an attempt was made to introduce a wire through the distal end of the radius, I have seen the wire slip off the bone and shoot rapidly through the soft tissues of the wrist, where the multiplicity of tendon, nerve and blood-vessel structures is undoubtedly the uppermost thought in one's mind at such a time. None of these accidents have ever given any permanent injury or loss of function.

I feel that Doctor Cleary's suggestions are a definite contribution to the better general treatment of severe fractures.

* * *

H. W. Spiers, M. D. (614 Westlake Professional Building, Los Angeles).—The successful modern treatment of fractures of the forearm and lower leg requires accurate knowledge of the use of skeletal traction and countertraction. The value of skeletal methods of traction in these regions has only lately been widely appreciated. Numerous complicated pieces of apparatus are now being evaluated. Doctor Cleary's ingenious apparatus recommends itself because of its simplicity.

The fundamentals of fracture surgery are: First, reduce by traction and countertraction; second, place the distal fragment in line with the proximal fragment; and third, immobilize. The apparatus that Doctor Cleary has devised fulfills these fundamentals in an unusually simple manner.

One danger, I feel, should be emphasized. Methods of skeletal traction are not for the use of the tyro. Thorough knowledge of their use, abuse, and dangers are essentially for their successful application. Skeletal traction does not in itself reduce the fracture. It is the skill of the surgeon that reduces the fracture. This fact should not be lost sight of in any discussion of this subject.

⁂

Doctor Cleary (Closing).—I would like to say a further word about the selection of transfixion wire. I am not committed to the use of ordinary oil-tempered spring-steel wire, although we have found this metal practicable and effective for the average case. Some of the stainless-steel wires, while more expensive and not so easily handled in penetrating the bone, will not snap as the tempered wire sometimes does. I feel that the wire should be selected according to the magnitude and duration of the stress that it is expected to carry.

Doctors Fisher and Spiers have emphasized the technical and the limited application of skeletal traction. May we not fully agree with them, and yet face clearly the fact that modern conditions bring serious fracture problems with increasing frequency to a single ordinary doctor, who must assume the responsibility for treating the injury with which he is confronted. I believe that "be prepared" is a better sentiment for us to leave with a colleague who may face such a situation than "beware meddling."

SHOCK TREATED BY WARMED AIR

By Harold H. Hitchcock, M.D.
and
T. Eric Reynolds, M.D.
Oakland

Discussion *by Edmund Butler, M.D., San Francisco; C. D. Leake, Ph.D., San Francisco.*

Many useful inventions have come as a result of men with an inventive turn of mind getting into trouble. This is just as true in the field of medicine as with inventions in general. The apparatus which we wish to report came about in just such a way. The inventor was lying in bed in a rather extensive cast, which he found to be uncomfortable while it was drying. After he recovered, remembering his own experiences, he sought about for a method of facilitating drying and cutting down the degree and duration of such discomfort. The Sweetland cast-dryer is the result of that effort.

The apparatus consists, essentially, of a cabinet with electrical coils for heating, together with a blower which delivers this warmed air into flexible tubes (Fig. 1). These tubes fit, by means of simple coupling devices, into a coiled spring mat which can be laid on a bed or folded around a patient, as any ordinary blanket or mat would be (Fig. 2). The coiled springs are covered by fabric, which makes the whole unit into a flexible chamber or a flexible hollow wrapping, through which the heated air circulates, to leave by a vent at its distal end. The principal mat, which envelopes the body and legs, is augmented by an auxiliary mat, which can be fitted over an arm to which a separate pipe can deliver heated air. The amount of heat delivered is subject to simple regulation by means of switches, so that a greater or lesser degree of heat can be obtained, depending on the needs. This device is the invention of Mr. E. J. Sweetland, and it proved highly satisfactory for its original purpose as a cast-dryer.

Its success in alleviating the distress of a drying cast prompted us to extend its use to the treatment of patients in surgical and traumatic shock, irrespective of whether or not they were provided with a cast. An early opportunity came in an individual who presented a combined picture in that he developed shock soon after an operation for bone graft of the femur for an ununited compound fracture. While the other measures to combat shock were being put into operation, he was encased in a cast-dryer, which, in addition to helping his rather extensive cast to dry speedily, also provided him with quick, generalized heat. This is an important factor in recovery from shock.

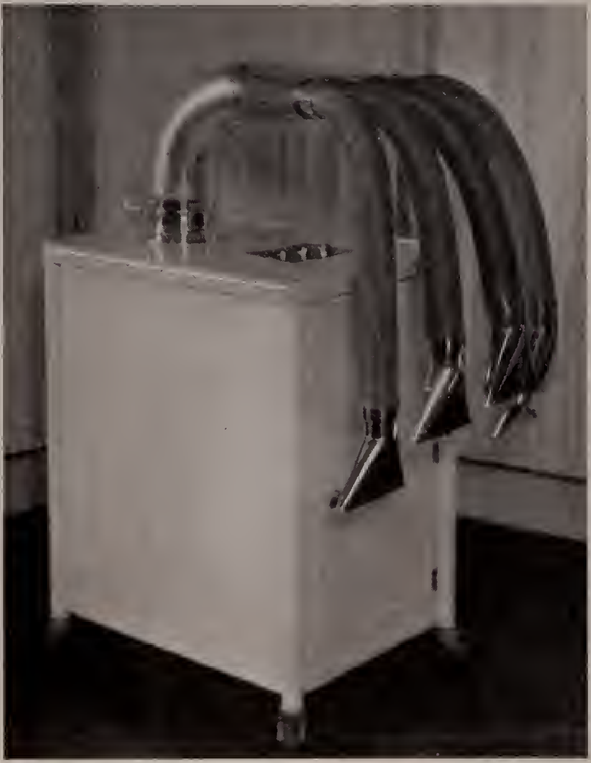

Fig. 1.—Warm air blower with flexible tubes.

Subsequently, the Sweetland apparatus was used by ourselves and our colleagues on various types of shock, including postpartum, postoperative, and posttraumatic shock. We have extended its use now to the prophylaxis of this condition by using the "cast dryer" whenever we have any reason to

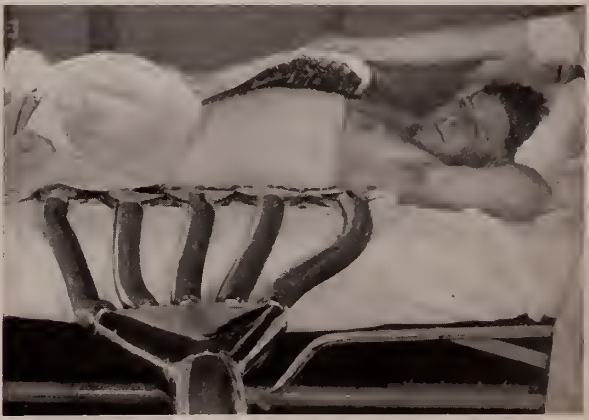

Fig. 2.—The cast is encircled by the mat.

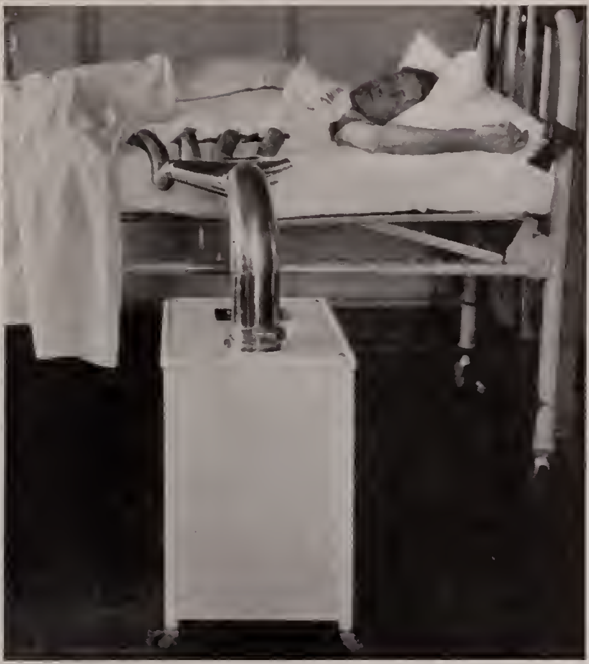

Fig. 3.—Assembly view of whole apparatus.

anticipate the possibility of shock. It is laid out in the patient's bed before he returns to it from surgery, and the bed is previously warmed thereby. As soon as the patient is in bed, it is used with the ordinary coverings and a moderate degree of heat kept up as long as necessary. It also subserves a very useful purpose in the treatment of individuals who are admitted into receiving and general hospitals in a state of shock from traffic and other accidents, as they can thus be warmed up in bed while an accurate diagnosis is being made.

1624 Franklin Street.

DISCUSSION

Edmund Butler, M. D. (490 Post Street, San Francisco).—The Sweetland cast-drier gives promise of being an excellent method of administering controlled heat. First, used as a bed warmer it must be very efficient. Not alone are one or two local areas heated by hot-water bags, as is the usual procedure, but the entire covering and the mattress would be thoroughly warmed. This, I feel, is a distinct advantage. Secondly, used as a means of administering heat to the patient, this again is most advantageous; but I am of the opinion that it must be controlled very carefully, and not too great or prolonged a temperature produced. A very severe type of shock may be the result of continued high temperature.

I wish to thank Doctors Hitchcock and Reynolds for bringing this method of heat administration to our attention.

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C. D. Leake, Ph.D. (University of California Medical School, San Francisco).—Evidence exists that "shock" is related to outpouring of adrenin and subsequent exhaustion of the adrenals (P. K. Knoefel, Calif. and West. Med., 39:344, 1933). This offers a probable explanation of the fall in temperature in "shock." Sparing the adrenals by supplying heat in this situation is thus rationalized, and certainly experience has abundantly justified the procedure. The method of providing heat described by Doctors Hitchcock and Reynolds is an ingenious, easily controllable, and highly effective one. Its use, as so succinctly indicated by them, should be very helpful, especially when available for emergencies.

BIOPSY IN MALIGNANT DISEASE*

By Otto H. Pflueger, M.D.
and
W. P. Stowe, M.D.
San Francisco

Discussion *by Emile Holman, M.D., San Francisco; Orville N. Meland, M.D., Los Angeles; George S. Sharp, M.D., Pasadena.*

As a result of intensive propaganda by the medical profession, patients with malignant disease are presenting themselves for care earlier than in past years. We are seeing, therefore, many more lumps of the breast, neck, subcutaneous tissue, etc., than we did, in which the diagnosis is neither obvious nor easy to make without direct examination of the entire tumor or a portion of it. Furthermore, even though one may make a correct clinical diagnosis, it is desirable to know the type of tumor with which one is dealing—its histologic picture, its probable response to irradiation, and its likelihood of recurrence. These things are important, and all available knowledge should be had concerning a tumor before treatment is undertaken. Pathologic examination is also necessary for the completion of our records, for only by such means can we evaluate any form of treatment three to five years later. This is especially true in those cases in which surgery is not contemplated and treatment is entirely by irradiation.

We feel, therefore, that a short discussion of the question of biopsy will not be amiss before this section of men who are largely responsible for the obtaining of tissue for examination. A knowledge of the indications and contraindications, and of the correct technique for obtaining a biopsy specimen, is of great practical importance in the treatment as well as in the diagnosis of malignant conditions.

We are not concerned in this paper with the procuring of a specimen from an ulcerated surface lesion. One can remove a small portion of tissue from the edge of such a lesion with a biopsy forceps with a reasonable assurance that no harm is being done. By means of an endotherm loop one has the possible added safety of control of hemorrhage and the questionable sealing of lymphatics. If this instrument is lacking, one need not, however, hesitate in taking a small piece from the edge in the ordinary manner, with as little trauma as possible.

DETERMINING THE NATURE OF THE TUMOR

What does concern us is how, with the least possible harm to the patient, we are to determine the nature of a tumor which arises beneath the surface of an unbroken skin. Properly performed, such biopsy will not decrease the patient's chance of cure, and will aid in outlining proper treatment. Three methods are available in cases of this type:

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* From St. Luke's Hospital and the University of California Surgical Service of the San Francisco Hospital.

Read before the General Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13 to 16, 1935.

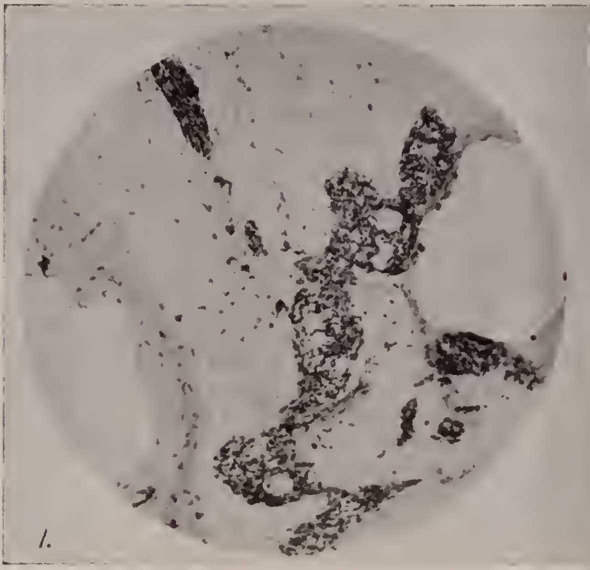

Fig. 1

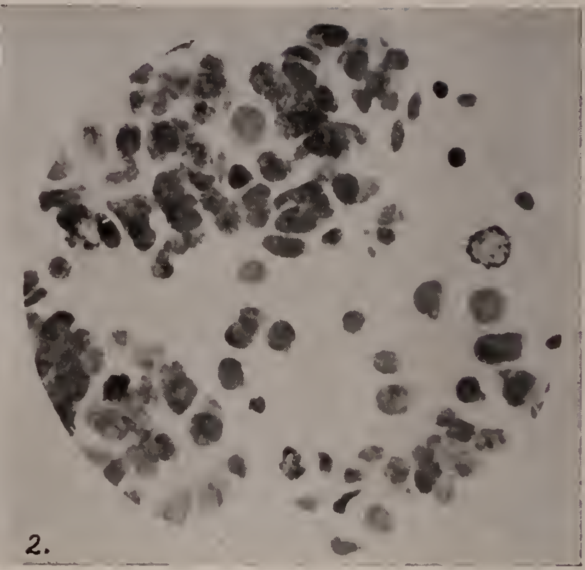

Fig. 2

Fig. 1.—Mixed tumor of parotid x 125. Loose myxoma tissue with nests of epithelial cells.
Fig. 2.—Carcinoma of parotid x 640. Irregularity of cell size and shape with three mitotic figures.

1. Incision directly into the tumor for observation of gross tissue, or removal of a portion for microscopic study.

2. Removal of the entire lump with a wide margin of normal tissue.

3. Aspiration of a small bit of tissue through an ordinary needle. With the last, one might mention such special instruments as the Hoffman punch,[1] but the mere simplicity of ordinary needle puncture and aspiration, requiring no unusual equipment, makes it the most readily available for this type of biopsy.

INCISION INTO THE TUMOR

Incision into a tumor, to observe its gross appearance or to procure a specimen, is undesirable and should be avoided when possible, because tumor cells may be implanted into normal tissue and a large number of blood and lymph channels are opened. Ewing especially feels that incision into a tumor alters the clinical setting by breaking down the natural local barriers, and favors early metastasis. The introduction of infection into a tumor, and the fungation of tumor tissue through the wound in the skin, are other possible complications. The latter is especially so in growths where the tumor tissue is under tension either because of the nature of the tumor—as in myxomas—or because of secondary necrosis. Bone tumors, also, are especially likely to fungate through a biopsy incision. Probably nothing which may occur in the course of a tumor's growth so alters

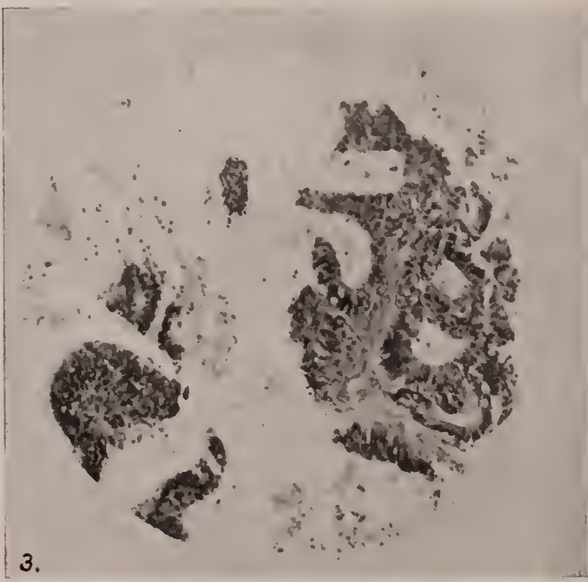

Fig. 3

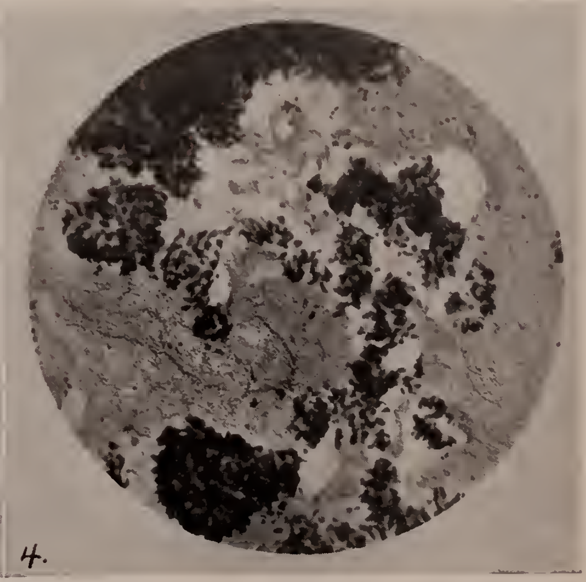

Fig. 4

Fig. 3.—Rib metastasis from adenocarcinoma of large bowel x 125. Paraffin section.
Fig. 4.—Same of stained crushed specimen.

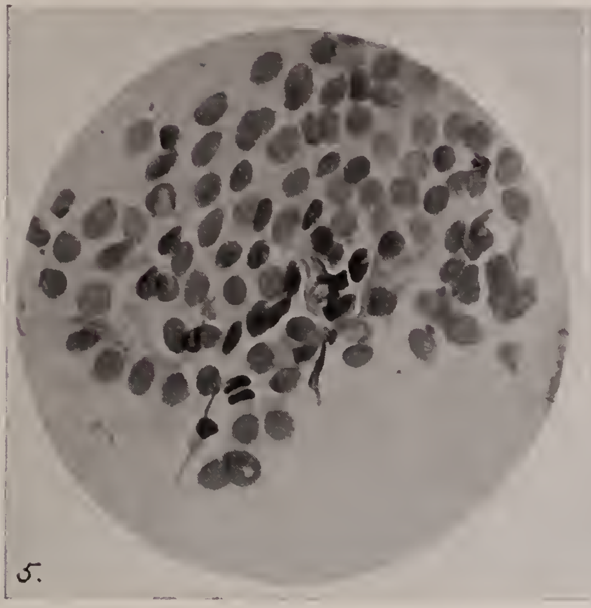

Fig. 5

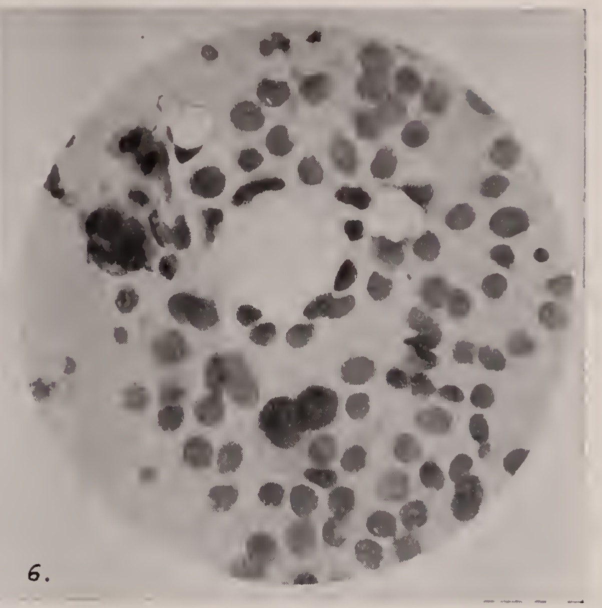

Fig. 6

Fig. 5.—Intracanalicular fibro-adenoma of breast x 640. Uniformity of cell pattern.

Fig. 6.—Adenocarcinoma of breast x 640. Shows irregular cell and nuclear size and pattern. One cell with four large hyperchromatic nuclei; one with two.

its clinical picture, and behavior and response to treatment, as does infection. Scrupulous care is needed to avoid it.

There are, however, instances when incision into the tumor for diagnosis is necessary. When this is so, a definite routine should be planned beforehand. Facilities for immediate diagnosis should be available, and the treatment indicated carried out at once. While we are not concerned here with treatment, the procedure of biopsy cannot be divorced from it. For instance, many surgeons transect a tumor of the breast to observe the cut surface for diagnosis. If carcinoma, the radical operation should be performed at once, after cauterization of the wound, and change of drapes, gloves, and instruments. It is a safer procedure to excise the lump widely, not cutting into it until it has been entirely removed. In biopsies of bone tumors everything should be ready for radical operation immediately if indicated. If a frozen section diagnosis at the operating table is not possible, the wound should be carefully closed, and x-ray treatment given in the interval it takes to arrive at a definite diagnosis. The Bone Sarcoma Registry contains cases well after five years in which some days elapsed after biopsy before radical treatment was instituted.

For perfectly obvious reasons biopsy is always indicated for confirmation of clinical diagnosis before such a radical procedure as amputation is undertaken. Such biopsy should be preceded by irradiation. X-ray treatment should also precede biopsy on soft tissue tumors to reduce the likelihood of metastasis, and to observe the effect of irradiation. In large lymph-node tumors, such as Hodgkin's disease or lymphosarcoma, it is preferable to take for biopsy a free node at the side of the bulky tumor, even though this gland may not always show a complete picture of the process. Where interstitial irradiation—that is, conservative treatment of metastatic glands—is the practice, the nodes may be exposed, a biopsy taken, and radon seeds or element needles immediately inserted into the gland which makes a good holder for the needles. Indiscriminate cutting into any lump which one may find is poor surgery, and poor cancer treatment, and should be condemned.

EXCISION OF TUMOR

Wide excision of a tumor for histologic examination is the procedure of choice whenever possible. This may not be feasible nor possible in large tumors. We prefer local excision of a small lump in the breast to incision into it. The Cancer Commission of the California Medical Association,[2] in its report on breast tumors, recommends local removal of a doubtful tumor, unless cancer is obvious at the first approach. To be sure, rough handling of the tumor and surrounding tissues may make for the situation we are trying to avoid, namely, the spreading of the disease, but all of us are aware of the delicacy that must be employed in the surgery of any neoplastic tissue. This procedure is of advantage also in that it yields the whole tumor for examination. Another reason for preference of local excision is that if the tumor proves to be benign, the operation has been completed and one need only close the wound.

There is another field where wide local excision is not only feasible but urged upon you, and that is in the case of the small subcutaneous tumor. The serious nature of these tumors is frequently overlooked. Many are sarcomata, and it is possible only by examination of the tissue under the microscope to distinguish between the benign fibroma or neurofibroma and the small sarcoma. These small sarcomata are peculiarly prone to recur. To incise one for diagnosis is, therefore, foolhardy, and equally so is its simple enucleation. Wide removal constitutes adequate surgery, gives one the entire tumor for examination, and is a safer procedure. To quote from another report of the Cancer Commission:[3] "Biopsy for small lumps is condemned. Excision is safer, certain, and not more difficult, and lends itself to a more thorough study of the whole tumor microscopically."

ASPIRATION BIOPSY

We prefer aspiration of a tumor to incision into it, for the purpose of obtaining material for histologic examination. There is definite indication for it in those tumors beneath the skin where complete removal of the lump is not feasible for adequate reasons, and where, ordinarily, incisional biopsy is done. It should also be used in those cases where irradiation is the best method of treatment in order to give us a histologic record for evaluation of the treatment, at the same time avoiding a surgical procedure in the operating room in obtaining this tissue. Furthermore, irradiation has less effect upon a tumor which has been incised and where fibrosis is present. Aspiration avoids the necessity for incision, and its disadvantages.

The method is not new, but for some reason it has not been utilized to the fullest extent of its possibilities. Within recent years it has been used largely at Memorial Hospital in New York; and papers by Martin and Ellis,[4,5] Coley and Sharp,[6] Sharp,[7] and by Ferguson,[8] have shown its value in various clinical varieties of growths. Tumors of cervical nodes, metastatic and primary; parotid and submaxillary glands; intra-oral tumors with nonulcerated mucous membrane; breast, bone, thyroid, lung, prostate, and soft tissue, have been diagnosed by this method. Recently, Stewart,[9] at the same institution, has reported on the pathologic interpretation of the material so obtained in 2,500 cases. No untoward results were noted in any of the cases as a result of the procedure.

The method used to obtain the tissue is that recently fully described by Martin and Ellis [4] in their paper published in 1934. It consists briefly in advancing an 18-gauge needle, attached to a tightly fitting record syringe, into the tumor through a stab wound in the skin made after injection of a little novocain. After the needle has entered the tumor, negative pressure is made within the syringe, and this is maintained continuously until one is ready to withdraw the needle. The needle is advanced in the tumor, withdrawn the same distance, again advanced at a slightly different angle, withdrawn an equal distance; the vacuum in the syringe is slowly reduced; the syringe detached and the needle separately withdrawn. The material in the needle is ejected onto a slide, crushed between two slides, air-dried, slightly flame-fixed, and then flooded with absolute alcohol for about two minutes to fix more firmly to the slide. Then it is washed in water; stained with hematoxylin (our preference is five to ten minutes in Mayer's hemalum); washed; mordanted in tap water for five minutes and stepped up through eosin in 95 per cent alcohol; two changes of absolute alcohol; carbolyxlol; hylol; and mounted with Canada balsam.

Resultant cell groups are searched for with low power, and analyzed with high power for arrangement—often typical—hyperchromatism, atypical structure or architecture; cell irregularity in size or nuclear pattern, and mitotic or amitotic division figures. There must be kept in mind that the aspiration picture will overemphasize the softer and more cellular structures, the fibrotic, hard, resistant tissues being less included in the needle specimen.

At times, no tumor cells are present in the smear. This occurs if the technique is faulty; at times, with correct technique, if the tumor is hard and fibrous; or when the mass is cystic or inflammatory rather than neoplastic. One elderly woman had a large cystic tumor of the maxilla with pressure bone erosion, which was considered as a possible adamantinoma. The material aspirated showed no tumor cells, only pus and inflammatory cells. At operation a large, smooth, thick-walled cyst was easily removed, which on section was entirely inflammatory. Tuberculosis of cervical glands was diagnosed in another case, and in another a liver mass was found to be actinomycosis.

That aspiration biopsy has certain drawbacks, no one can deny. These lie chiefly in the finer pathologic interpretations. The various types of cancer of a particular organ usually cannot be differentiated, nor can one always grade a tumor and so determine its probable response to irradiation. Coarser differentiations, however, are possible. For instance, in material aspirated from cervical nodes one may see squamous pearls, or one may find the sheets of cells characteristic of the transitional cell type, and so know what type of treatment is indicated. We have so done in our own series, with the transitional type completely disappearing under x-ray treatment. What one is diagnosing is usually a smear of tissue, unless one obtains enough material for paraffin section. Cell relations are largely lost, as are the relations of the whole tumor to the surrounding tissue. But neither do we have this latter information when a small piece of tissue is removed through an incision, and that is what most surgical biopsies consist of.

It must be emphasized that the method is not one for academic detachment. The pathologist and the clinical surgeon must sit down together with their completed slides and consider all aspects of region and tissue involved, and the clinical aspects of the case. Then, out of their combined efforts they must try to formulate a diagnosis. Many times the resultant will be definite as to type and malignancy; many times definite as to malignancy, but not type, and many times it will be, in honesty, "indeterminate." In these cases no chagrin need be felt, as the patient has not been harmed and the traditional methods can then be employed.

The essential training in learning this method is to needle every routine tumor received in the laboratory and then compare these preparations with the tissue sections until some wisdom is attained in their interpretation.

Mention of a few locations in which aspiration is feasible and has helped us is probably the best way of demonstrating its value. It can be used in doubtful tumors of the breast. It is especially valuable in those cases which turn out to be cancer, because then the indicated treatment can be carried out with the least previous interference. If benign, the patient can be reassured with little loss of time. Also cases may be quite obviously cancer, but for some constitutional or other reason treatment must be entirely by irradiation. It is important to have histologic proof for record, which can be obtained very easily by aspiration. Bone tumors, especially liable to fungate through biopsy wounds, can be diagnosed as to their general nature by aspiration when the cortex is sufficiently eroded to allow penetration of the needle. The same applies to antrum tumors. Coley and Sharp[6] have reported success in aspiration of bone tumors in a high percentage of cases, occasionally having a diagnosis only of malignant tumor cells, but most often a definite diagnosis as to type.

The differential diagnosis of cervical tumors is frequently difficult, and especially so if no primary lesion is found to account for metastasis. The first indication of a large percentage of pharyngeal or tonsillar lesions is an enlargement of cervical glands. Aspiration will most often make the diagnosis of the condition in the nodes; at least it will give strong presumptive evidence as to the nature of the condition. Presumptive evidence is usually all that is possible in Hodgkin's disease and lymphosarcoma. We have repeatedly made correct diagnoses in cases of metastatic glands, and have at times ruled it out by finding an inflammatory condition. If necrotic material is obtained, it may be due to an inflammatory condition, such as tuberculosis, or to broken-down carcinoma. The latter occurs frequently if irradiation has been previously given, but one can usually find cells which are undoubtedly of a malignant nature. Aspiration is attended with much less interference than the removal of such a gland.

It is impossible to consider all types of tumors and locations in which aspiration is of value. As mentioned, it can be used in cases where an incision into the tumor would ordinarily be made. Reference to the figures will show some of the material we have obtained by aspiration, and the microscopic picture of the same.

CONCLUSIONS

1. To know the indications for biopsy is a need of every individual who treats neoplastic diseases.

2. Surgical incision into a tumor should be avoided, and can be avoided in most instances.

3. Wide excision of a tumor for diagnosis is the best means of obtaining tissue for examination whenever feasible.

4. Aspiration through needle puncture *is* a sensible means of biopsy, and will give a tissue diagnosis in most instances.

384 Post Street.

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DISCUSSION

Emile Holman, M. D. (Stanford University Medical School, San Francisco).—There can be no question that biopsy upon suspected malignant disease is more frequently necessary at the present time than in former days, when patients consulted a physician for cancerous lesions recognizable as such on inspection alone. In performing such biopsies it is most necessary to bear in mind the potential dangers inherent in the procedure. The division or rupture of blood and lymphatic vessels within a malignant tumor inevitably conditions the possibility of cancer cells being carried off into the blood or lymphatic systems to be deposited elsewhere beyond the surgeon's reach.

In the course of a recent operation for a questionably malignant tumor of the breast, the mass was transected and observed to be cancer; then the cut surfaces were cauterized with phenol and the incision closed. An immediate radical mastectomy was performed. Microscopic examination of the axillary nodes revealed whole fresh blood cells in the lymph sinuses within the glands. These undoubtedly had their origin from the cut surfaces of the first incision. The interval between the incision and the removal of the nodes was approximately sixty minutes. There is no reason why cancer cells could not be equally quickly transported from tumor to lymph sinus. The lesson is obvious. No biopsy should be undertaken that is not followed immediately by the proper treatment, whether it be surgery or radiation therapy.

Aspiration biopsy requires special training in the interpretation of the material obtained, and should not be undertaken unless such experience in interpretation has previously been available. Given the essential equipment and a properly trained pathologist, the aspiration biopsy should have a wider field of usefulness.

Transection of the tumor for inspection of the cut surface should be reserved only for lesions that are not easily enucleable. Where possible, complete excision of the tumor, as in small lesions of the breast, is the most desirable method of obtaining a specimen, the character of which will determine the subsequent course of the operation or treatment.

⁂

Orville N. Meland, M. D. (1407 South Hope Street, Los Angeles).—Despite all our efforts in the refinements of diagnosis of tumors, we are still dependent upon biopsy.

In the final analysis, it is only by microscopic examination of the suspected tissue itself that one is able to make a definite diagnosis of a benign or a malignant condition. From a theoretical standpoint, there is always a possibility of dissemination when a biopsy is done, but the possible harm is much less than the good it accomplishes for the patient. However, when done, suitable treatment should be carried out immediately so as to lessen such a danger; this is especially true where the surgeon must cut through normal tissue to reach the suspected lesion.

Within the last few years the use of aspiration biopsy has come to the front. It is particularly useful where the treatment is to be radiological, rather than surgical; but even where surgery is contemplated after preoperative radiation, it is advisable, as it not only makes a definite diagnosis possible, but it acts as a guide in establishing some criterion as to the amount of therapy that should be given.

These are the advantages, but there are certain disadvantages also. When positive the method is excellent, but where the aspiration is negative it means little one way or the other. For instance, in suspected Hodgkin's and lymphosarcoma it is to be condemned, for even when an entire node is removed the pathologist may have difficulty in arriving at a correct conclusion; so, wherever feasible, the regulation method of biopsy is preferable.

It is very commendable of Doctor Pflueger to focus our attention on biopsy again. Whatever progress we hope to make in the early recognition of cancer must necessarily be along these lines. The method of doing a biopsy is of secondary interest; it is the interpretation of the tissue that is of paramount importance.

⁂

George S. Sharp, M. D. (605 Professional Building, Pasadena).—We have heard a complete treatise on the subject of biopsy, and only certain statements that Doctors Pflueger and Stowe have made need emphasis.

The preliminary working diagnosis should be based primarily on a thorough history and complete physical examination. Special examinations, such as transillumination, are important diagnostic procedures, and should always be performed when of advantage for the most accurate clinical impression. Information gained from the above examinations should enable the physician to determine the correct diagnosis in at least 85 per cent of the patients.

Pathological confirmation of the diagnosis is desirable many times before treatment is started, when the clinical findings are not definite. Frequently a radiation program is planned, or preoperative x-ray therapy is advisable, and a pathologic report is most necessary for the tissue structure and degree of anaplasia. The proper dosages of radiation must be based on this microscopic study.

The aspiration biopsy is of great value for the above material in certain cases. By this procedure, a tissue examination is possible without risk (Ewing, Stewart) and without loss of time and wound healing, and it is a procedure that may be performed without hospitalization or delay. The aspiration biopsy may be used for many ulcerated tumors. This procedure is used regularly for locating and identifying intracranial tumors. I have found the procedure of very definite value in identifying metastatic lymph nodes, tumors in the upper lobe of the lungs, or those located well out in the parenchyma, beyond the reach of the bronchoscope. Complete differentiation cannot always be made upon the smear, but the question of malignancy can be settled. This type of tissue study does not make it possible to differentiate between the different members of the lymphoblastoma group and Hodgkin's disease.

The reason for this discussion, I believe, is to condemn the hasty operation for diagnosis, and to replace it with a more complete and effective program which is based on the complete clinical findings (with a possible aspiration diagnosis) in order that no step in the attack against a malignant growth is omitted.

THE LURE OF MEDICAL HISTORY†

QUACKERY AND NATUROPATHIC LOGIC IN 1795–1825

By Harold M. F. Behneman, M.D.
San Francisco

REMEMBERING that, in the year 1934, the electorate of California were called upon to vote on the Naturopathic initiative (No. 9), it is interesting to review the same unscientific concepts and biased logic which existed one hundred and fifty years ago.

CULTIST SAMUEL THOMSON'S BOOK: THE "NEW GUIDE TO HEALTH; OR, BOTANIC FAMILY PHYSICIAN"

On February 9, 1769, one Samuel Thomson was born, to later become an outstanding cultist in the State of Massachusetts. In the fifty-third year of his life, and in the forty-seventh year of American Independence, he persuaded one Horton Howard of Columbus to publish a volume of one hundred and twenty pages entitled, "New Guide to Health; or, Botanic Family Physician."

By 1827, this book had run through four editions. Like the majority of modern cultist publications, it divided its contents into two main parts—first, the experience and theories of its author, and, secondly, the usual attack upon the medical profession. We learn that the tendency of lay practitioners today to sell, patent or copyright their wares, is at least a century and a half old.

On page 1 of his book, Mr. Thomson reveals his true colors as a cultist in the following utterance, so characteristic of an unscientific mind, devoid of knowledge concerning the fundamental elements of Hippocratic medicine, stating his "Agreement," frequently italicized by himself: "The subscriber, who is the discoverer and proprietor of the system of medical practice contained in this work, agrees to give, whenever applied to, any information, that shall be necessary to give a complete understanding of the obtaining, preparing and using all such vegetables as are made use of in said system, *to all those who purchase the right;* and the purchasers, in consideration of the above information and also what is contained in this book, agree, *in the spirit of mutual interest and honor, not to reveal any part of said information, to any person except those who purchase the right,* to the injury of the proprietor, under the penalty of forfeiting their word and honor, *and all right to use of the medicine.* And every person who purchases the right, is to be considered a member of the Friendly Botanic Society, and entitled to free intercourse with the member for information and friendly assistance."

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† A Twenty-five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

To further prevent humanity and science from stealing his thunder, he had John W. Davis, clerk of the Massachusetts District, in 1822, file copyright claims to the title *and contents* of his book.

HOW CULTISTS REPEAT THEMSELVES

In the "Introduction," his defense of his methods, and his opening attack upon doctors of medicine, reveal his inferiority complex. Today, in the chaos of our times, we recognize the tendency of cultists to depend upon one or a few modes of therapy for a wide variety of conditions. All we need do, in proof of this, is to peruse the newspaper advertisements of the quack, the charlatan and the parasites that prey upon honest medicine. It is an old story, for here we find over a century ago Mr. Thomson's statement:

> "If, then, a medicine is good in any case, it is because it is agreeable to nature, or this principle of life, the very opposite of disease. *If it is agreeable in one case, it must be absolutely so in all.*" (Italics by this author.)

Does not this resemble a modern advertisement of the colonic irrigationist, et al?

After informing the countryside of the magic healing power of vegetables, he states:

> "This greatly disturbed the learned doctors, and some of them undertook to destroy me, by reporting that I used poison: though they made no mention of my using their instruments of death, mercury, opium, ratsbane, nitre and the Lancet."

In combating the forces which seek to menace the public health standards so sanely and patiently built up by scientific medicine, we might consider, at least for its immediate effectiveness, the adoption of methods used by the physicians of Massachusetts in 1800! For, as Mr. Thomson states:

> "A plan was once laid to take me in the night, but I escaped . . . next, I was bound in irons and thrust into prison, to be kept there through the winter without being allowed bail."

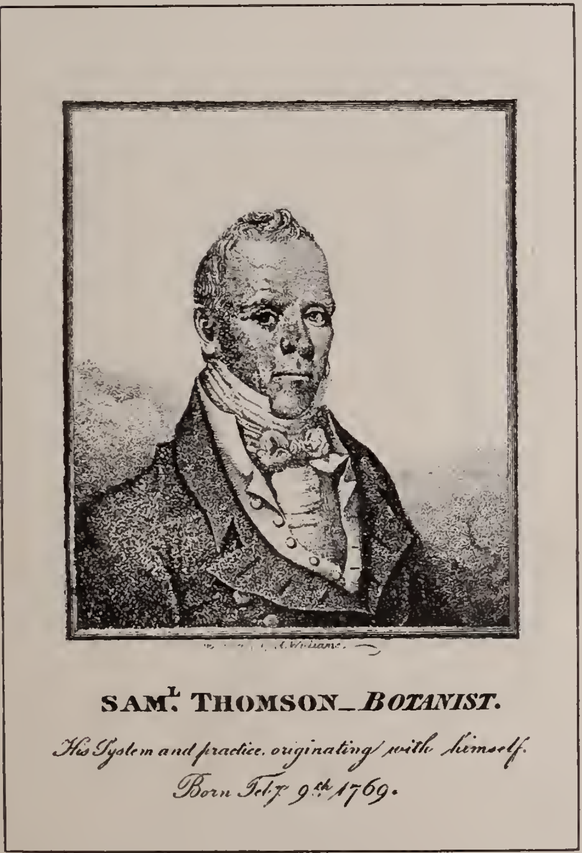
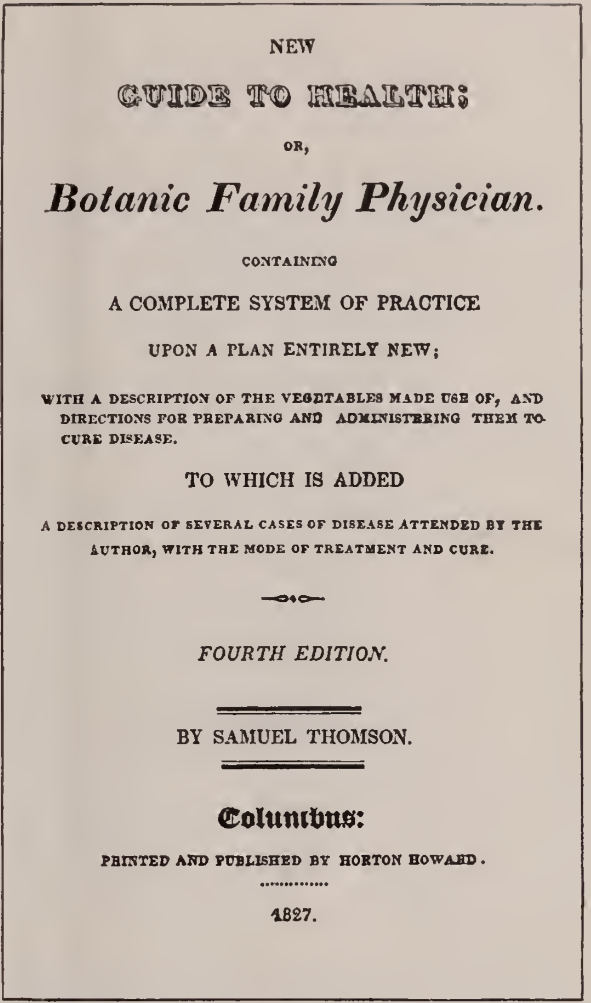

SAML. THOMSON_BOTANIST.
His System and practice, originating with himself.
Born Feby 9th 1769.

Fig. 1.—Samuel Thomson.


NEW

GUIDE TO HEALTH;

OR,

Botanic Family Physician.

CONTAINING

A COMPLETE SYSTEM OF PRACTICE

UPON A PLAN ENTIRELY NEW;

WITH A DESCRIPTION OF THE VEGETABLES MADE USE OF, AND DIRECTIONS FOR PREPARING AND ADMINISTERING THEM TO CURE DISEASE.

TO WHICH IS ADDED

A DESCRIPTION OF SEVERAL CASES OF DISEASE ATTENDED BY THE AUTHOR, WITH THE MODE OF TREATMENT AND CURE.

FOURTH EDITION.

BY SAMUEL THOMSON.

Columbus:

PRINTED AND PUBLISHED BY HORTON HOWARD.

1827.

Fig. 2.—Title page of the "New Guide to Health," published in Ohio in 1827.

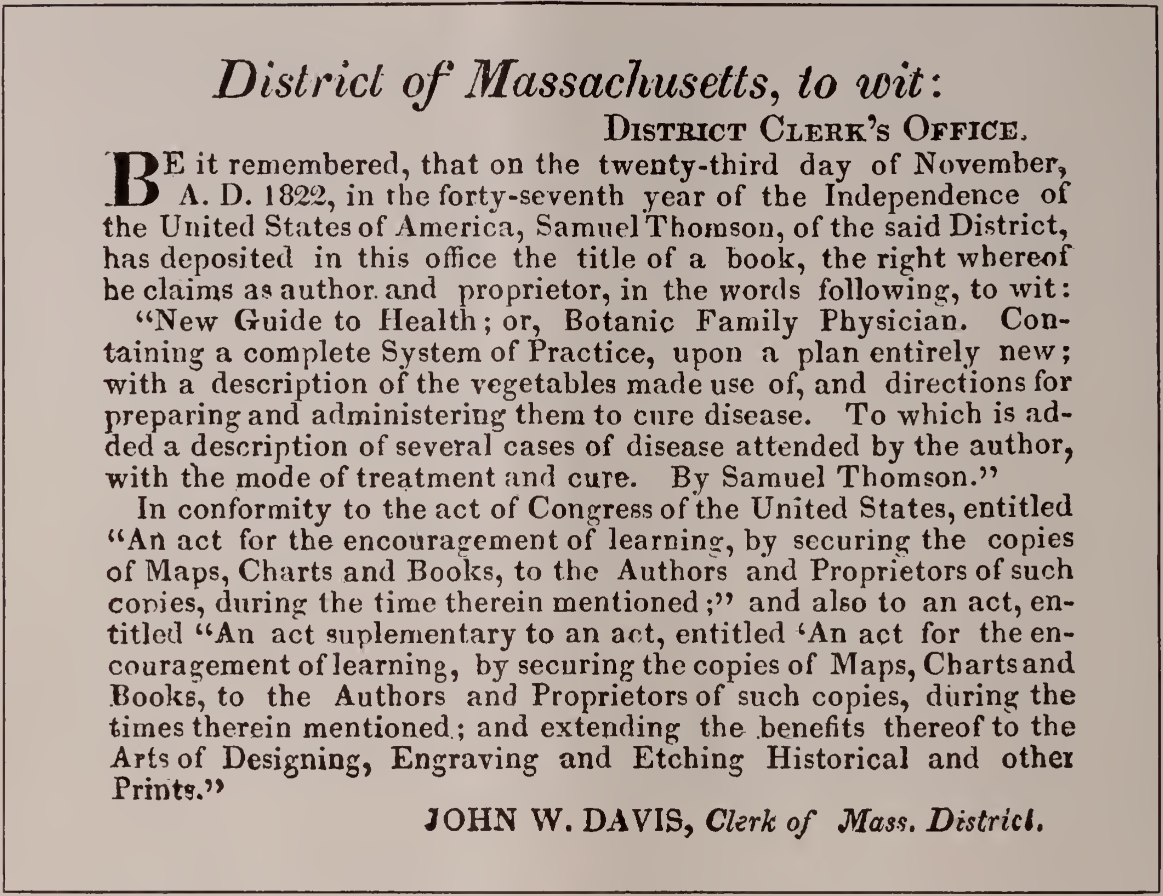
How analogous to the modern cultist's high pressure sales talk is this:

> "The practice of the regular physicians, that is, those who get a diploma, at the present time, is not to use those means which would be most likely to cure disease; but to try experiments upon what they have read in books, and to see how much a patient can bear without producing death. After pursuing this plan during their lives, they know just about as much as they did when they began to practice. . . ."

SIMILARITY TO MODERN CULTIST ADVERTISING

In the light of modern cultist advertising, however, the *pièce de resistance* of Mr. Thomson's essay is the final paragraph of his introduction; to wit: "There is . . . one general cause of disease and one general remedy."

If we close our eyes a moment and visualize the present tactics of the cultist, we can, with



District of Massachusetts, to wit:

DISTRICT CLERK'S OFFICE.

BE it remembered, that on the twenty-third day of November, A. D. 1822, in the forty-seventh year of the Independence of the United States of America, Samuel Thomson, of the said District, has deposited in this office the title of a book, the right whereof he claims as author and proprietor, in the words following, to wit:

"New Guide to Health; or, Botanic Family Physician. Containing a complete System of Practice, upon a plan entirely new; with a description of the vegetables made use of, and directions for preparing and administering them to cure disease. To which is added a description of several cases of disease attended by the author, with the mode of treatment and cure. By Samuel Thomson."

In conformity to the act of Congress of the United States, entitled "An act for the encouragement of learning, by securing the copies of Maps, Charts and Books, to the Authors and Proprietors of such copies, during the time therein mentioned;" and also to an act, entitled "An act suplementary to an act, entitled 'An act for the encouragement of learning, by securing the copies of Maps, Charts and Books, to the Authors and Proprietors of such copies, during the times therein mentioned; and extending the benefits thereof to the Arts of Designing, Engraving and Etching Historical and other Prints."

JOHN W. DAVIS, *Clerk of Mass. District.*

Fig. 3.—Photograph of notice of copyright of title of his book, granted by the District of Massachusetts, November 23, 1822.

amazing reality, transplant intact this paragraph, written one hundred and twelve years ago, into 1934; for it smacks of the faddist's sales talk:

> "The practice of giving poison as a medicine, which is so common among the medical faculty at the present day, is of the utmost importance to the public; and is a subject that I wish to bring home to the serious consideration of the whole body of the people of this country, and enforce in the strongest manner on their minds the pernicious consequences that have happened, and are daily taking place by reason of giving mercury, arsenic, nitre, opium and other deadly poisons to cure disease."

Later, in this same book, his "New Guide to Health," the author deals a severe blow to our conception of the importance of "bedside manner," personality, etc. Unintentionally, probably, he classifies all physicians into two groups, skillful ones and fools; for he writes: ". . . for poison given to the sick by a person of the greatest skill will have exactly the same effect as it would if given by a fool." What a fitting phrase that would be for the title page of a pharmacology textbook!

Most of us, in the practice of medicine, have heard facetious remarks from patients, such as "It's fashionable to have your tonsils (or appendix) out." It is not new, for in 1822 the botanist wrote: ". . . the doctors have no system . . . almost every great man among them has had a system of his own, which has been followed by their adherents till some other one is brought forward more fashionable."

Mr. Thomson, in a matter of one hundred pages, lists the vegetables, herbs and remedies he considers of value. Their origin, their characteristics and their uses are minutely recorded. The diseases for which they are specific are also named, as well as the manner in which they must be used. Those of us who unfortunately tune in on some so-called medical and health talks over the air soon learn from the nauseating misinformation that the majority of "regular speakers" use numbers for drugs or their combinations, such as "take my powder No. 4 for ulcers, No. 11 for sinus trouble, etc." Alas, even this is not new! Mr. Thomson has all of his drugs, potions, mixtures and remedies numbered. And what is more, he advises for "ague in the face . . . a dose of tea No. 3, a dram of No. 6 . . . then tie a small quantity of No. 2 in a fine piece of cloth, wet with No. 6 . . ." etc., etc.

THOMSON'S CLASSIFICATION OF REMEDIAL AGENTS

Of the maze of diseases and remedies, all of the latter seem to fall into two classes: those which he has found to succeed, and those that have failed. His reasoning is remarkably modern, in relation to the quack and charlatan of 1934; in other words, when a cure was effected the medicine did it, but when a failure came, he had numerous excuses to give for it. As in the present field of physical medicine which the laity uses extensively without legal or moral curb, some of the modalities are bound to help—the majority of all sick people feel better, at least temporarily, if they have heat, massage, hydrotherapy, rest exercise, etc. And in the minority of cases that fail to improve, the quack has a ready excuse. Here in this eighteenth century volume are two perfect examples of such reasoning.

The first is one of Samuel Thomson's prized remedies. Of it he says: "In fact, there is hardly a complaint, in which this useful medicine cannot be used to advantage." It is listed as "No. 6—Rheumatic Drops." Gaze upon the compound and you will see that enough of this mixture will easily have one so alcoholic that mere pain, as well as other things, will not matter! The treatment is as follows: "One gallon fourth proof brandy, one pound of gum myrrh, one ounce of cayenne pepper. Boil a few minutes or let stand six days." Mr. Thomson states there are two uses for this unfailing remedy: "To remove pain and *prevent mortification.*" (Here, the italics are mine.) In fact, if I am not mistaken, most pathological laboratories are still immersing human tissue in alcohol "to prevent mortification."

And now, to the other extreme, Mr. Thomson's remedy for "cancers of the breast." He writes:

> "One of them was as large as a half-peck measure and grew fast to the breast bone. I carried the woman through a course of medicine several times, and applied a poultice of butternut shucks . . . and continued this course for some months, until the bunch had more than half dissolved and had grown off from the bone . . . but she was *taken with a fever in my absence and died.* The other two . . . nature was *too far exhausted* to *complete* a cure." (Again, the italics are mine.)

At times, it appears that Mr. Thomson had some leanings toward faith healing, for he admits the presence of parasites in the body, but refuses to acknowledge the fact of their pathogenicity:

> "A great deal is said about worms causing disease. There was never a greater absurdity than . . . the opinion about worms causing disease. The fact is they are created and exist in the stomach and bowels for a useful purpose and are friendly to health . . . they never cause disease, but are caused by it. Those who are in health are never troubled with worms, because they are then quiet and exist in their natural element."

THOMSON'S CONCEPT OF PHYSIOLOGY

The botanist-author was adept at forming strange conclusions to fit his own theories of physiology, to wit:

> "When the stomach is diseased . . . the worms try to flee from their danger . . . and they sometimes get into knots and stop the passage to the stomach. Much more might be said on . . . the dangerous practice of giving medicine to kill worms."

Concerning consumption, Mr. Thomson feels that the doctors are grossly in error when "This complaint is called . . . a hectic fever . . . for there is no fever about it . . . the only difficulty is to raise a fever."

Down through the ages have come five metals that scientific medicine still uses for syphilis and anemia. Of these five the ancient cultist has this to say:

> "Avoid all minerals used as medicine, such as mercury, arsenic, antimony . . . copper or lead. They are all poison and deadly enemies to health."

One of the author's firm beliefs is:

> "The medicine necessary to remove the complaint must be applied to that part where the disease is seated; if in the stomach only, by taking the medicine, it may be removed; but if in the bowels the same compound must be administered by injection . . . as the grand object is to warm the bowels."

THOMSON'S FAMILY MEDICINE CHEST

There was little need of a drug code in the days of Samuel Thomson. If his ideas had been widely accepted, but few drug stores could have existed, for here is his entire stock of medicine for a family for *twelve months:*

"Stock of Medicine for a Family.

1 Oz. emetic herb
2 Oz. cayenne
½ Lb. bayberry root bark
1 Lb. poplar bark
1 Lb. ginger
1 Pint of rheumatic drops

> "This stock will be sufficient for a family for one year, and with such articles as they can easily procure themselves when wanted, will enable them to cure any disease, which a family of common size may be afflicted with during that time. The expense will be small, and much better than to employ a doctor and have his extravagant bill to pay."

Even in the dull 1790's all the cultists hid under one cloak, and dragged with them all those irregular practitioners possible to increase their support, as evidenced by the following concerning obstetrics:

> "Many men . . . have attended . . . their own wives, and I have never known of an instance of any bad consequences; and if young married men would adopt the same course, it would be much more proper and safe than to trust their wives in the hands of young inexperienced doctors . . their cruel and harsh treatment in many instances would induce the husband to throw them out of the window."

One hundred and fifty years of medical progress have passed since publication of this popular volume, in its fourth edition in 1827 and reissued in 1849, six years after the author's death; and yet despite this progress not only in science, but in civilization, over 110,000 California voters in 1934 signed the Naturopathic initiative petition, contributing to so much additional turmoil in the election campaign of that year. What a pity Samuel Thomson cannot be alive to join forces with some of his modern day successors! His thirty years' experience are not needed here—we have *advanced:* if some of the proposed initiatives become laws, only a general school education of less than full high school standards would be necessary, plus a few enlightening weeks in a cultist school, to enable the botanists of 1934 to practice medicine and surgery in California!

Shades of Hippocrates!

384 Post Street.

CLINICAL NOTES AND CASE REPORTS

SCLEROSING LESIONS OF THE STOMACH, TERMINAL ILEUM AND COLON

REPORT OF CASE RESULTING FROM CHRONIC MERCURIAL POISONING

By Albert E. McEvers, M.D.
Los Angeles

A FAIRLY extensive search of the literature does not reveal any record up to date of chronic mercurial poisoning that caused gastrointestinal sclerostenosis, with intestinal obstruction.

REPORT OF CASE

Mrs. E. B., age 68, admitted to hospital March 4, 1931. Family history irrelevant.

Past History.—The patient was desperately ill when she entered the hospital and it was difficult to get her medical history. She had been fairly well until three years previous to the present illness, when she had an alleged nervous breakdown, confining her to bed for some time. From then on, constipation gradually increased, which required large doses of cathartics and enemas for elimination. She had many attacks of vomiting, with indefinite generalized abdominal pain and abdominal distention, which became more persistent and frequent.

The patient lived alone, and the only additional information obtained from relatives was that she had taken patent blood medicine for many years. Whether this blood medicine contained mercury could not be definitely established.

Course of Terminal Illness.—Three days prior to her admission to the hospital the patient had an attack similar to previous ones, but was unable to relieve herself. She had persistent fecal vomiting, generalized abdominal pain, and distention.

Examination. — A poorly nourished, white female, desperately ill, perspiring profusely, dehydrated and toxic, with a distended abdomen; temperature, 101 F., pulse 120, respiration 28. There was no visible peristalsis, no tinkling. She represented an end-stage of obstruction. There were no scars from former operations, no hernia; rectal examination revealed little, if any, information.

Hemoglobin (Dare) 85 per cent; leukocyte count, 33,900; erythrocyte count, 4,750,000. Urine was cloudy, specific gravity 1015, acid reaction, trace of albumin, no sugar or acetone. Microscopic examination showed a few granular casts, a few leukocytes, no erythrocytes.

Treatment.—Intravenous infusions and hypodermoclysis were given to replace fluid and chemical loss. The patient was too ill to undergo extensive surgery. Under local anesthesia, an enterostomy, without exploration, was done. There was considerable drainage from the enterostomy tube; however, no improvement was noted, and the patient expired in twenty-four hours.

Postmortem. — The interesting findings at autopsy were sclerosing lesions of the stomach, terminal ileum, lower end of descending colon and sigmoid.

The stomach was leather-bottle type. For three feet proximal to the ileocecal valve, the terminal ileum was small, about one-half inch in diameter, cord-like, and indurated. At the proximal end of this sclerosed portion of the ileum, there was complete obstruction; above the obstruction the bowel was thin, walls were stretched and ballooned out. The lumen at the distal end of the sclerosed lesion would admit the tip of a small probe. The lower part of the descending colon and sigmoid presented a similar appearance, being a little larger than the terminal ileum, as was its lumen. The rectum appeared more or less normal.

The gross appearance of these lesions suggested Krompecher's carcinoma disseminatum or "linitis plastica." Specimens of the tissue were examined by Dr. George H. Hansmann, who reported as follows:

"The specimen identified as G-31-79 is composed of sections from the stomach (pyloric end), terminal ileum and descending colon.

"Two sections of stomach are present, both taken in the region of the pylorus. One section shows an absence of mucosa with the base of the ulceration made up of chronic granulation tissue. This ulcer gradually merges into another, whose underlying structures are composed of normal stomach wall which is infiltrated with polymorphonuclears. This denuded area is covered by fibrin and polymorphonuclears. There is no evidence of neoplasm. Several large vessels in the old ulcer area show marked subintimal proliferation with a resultant very small vessel lumen.

"Section of the ileum, taken from the upper and middle segments of the terminal three feet submitted, show nothing remarkable. A section, however, taken near the ileocecal valve shows necrotic débris in the lumen, which is heavily infiltrated with polymorphonuclears. Organisms are present in this débris. The wall has a few polymorphonuclears in it.

"The section of the descending colon shows a markedly contracted colon, so that only a very small lumen remains. The mucosa is almost completely absent, being replaced by necrotic tissue and fibrin. The submucosa is quite edematous, but also shows some increased amount of connective tissue. The most striking picture, however, is the injury to the vessels in the submucosa. The arteries appear to be more involved than the veins. They show fibrinous thrombi in their lumina in variable amounts, from complete occlusion to only a small deposit on the intima. The whole wall is heavily infiltrated with polymorphonuclears.

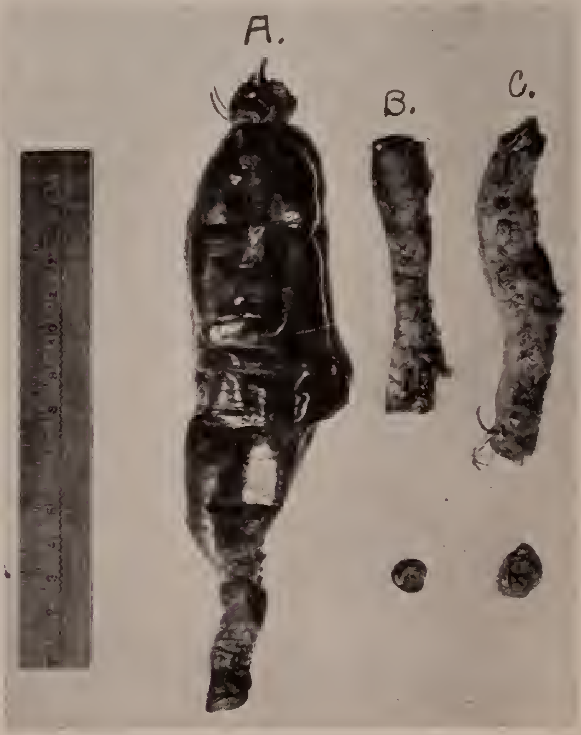


Fig. 1.—Terminal ileum and sigmoid: (*a*) showing the point where obstruction became complete in the terminal ileum, the ballooned and thinned-out segment of the ileum above the obstruction, and the cord-like, sclerosed and thickened bowel below; (*b*) terminal ileum with cross section showing almost complete loss of lumen; (*c*) section of the sigmoid with cross section showing the lumen, which is larger than that of the terminal ileum, but fairly well obliterated.

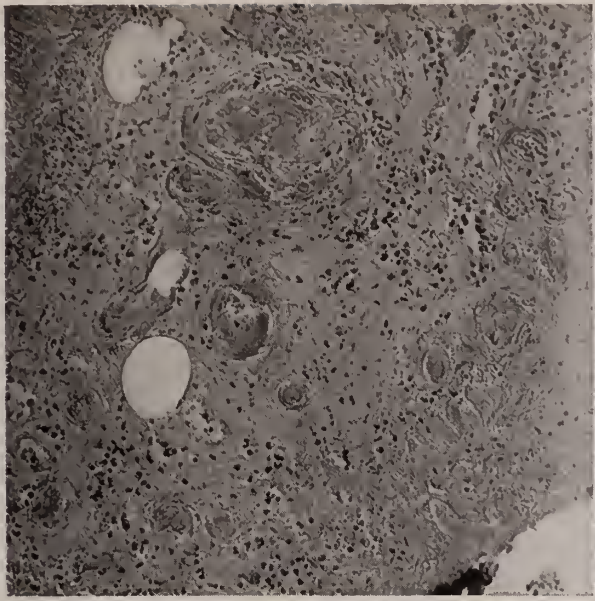


Fig. 2.—Mercurial poisoning: tissue from lesion of stomach in this case; note number of occluded vessels, ulceration and inflammation.

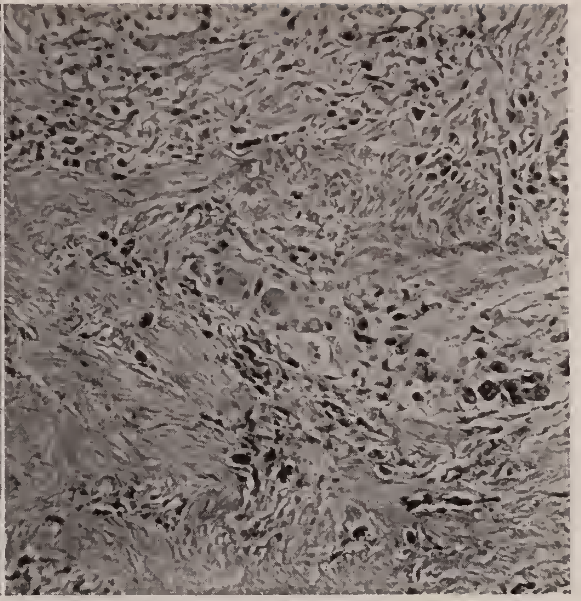


Fig. 3.—Linitis plastica: Krompecher's carcinoma disseminatum; note small epithelial infiltration and scar.

"In the above description it is quite evident that there is no evidence of neoplasm. It also appears that the lesion is one of a vascular nature. The extensive necrosis in the lower ileum and colon appears to be secondary to the vascular occlusions which are easily demonstrable. The etiologic agent producing this vascular injury remains obscure. The sections were examined by Dr. S. B. Wollbach of the Harvard Medical School, and his conclusions are no more definite than ours.

"There is yet, however, one thing which may be done in an effort to find an etiologic agent. This is the examination of the tissue for the presence of mercury."

Tissue from these specimens was forwarded to the Pharmacological Laboratory of Western Reserve University, and a chemical analysis of sections of the organs for the detection or presence of mercury gave the following results:

Organ	Weight	Mercury
Colon (cecum)	42 gm.	9.9 mg. hg.
Stomach	45 gm.	0.2 mg. hg.
Ileum	230 gm.	2.0 mg. hg.

COMMENT

In view of the report of the chemical analysis made from sections of the colon, stomach, and ileum, it would seem that there is established a definite relationship between these lesions and the mercury revealed.

The method of analysis used does not indicate in which form the mercury existed, and the mercury present was recovered as metallic mercury. Normally, if no mercury has been administered or ingested the tissues do not contain detectable amounts.

It has been found that after mercury medication a portion of the injected mercury is retained indefinitely in the body; 50 to 60 milligrams with therapeutic courses of intramuscular or intravenous injections of soluble inorganic or organic compounds, and from 200 to 700 milligrams of mercury are retained in the body following intravenous injections of colloidal solutions.

Mercury is eliminated by the bowels, kidneys, liver, and saliva. The main outlet of mercurial compounds is through the kidneys. The mercury compounds of small solubility pass out of the system mainly through the intestine in the form of mercuric sulphid.

Myers and Throne[1] call attention to the possibility of heavy metals entering one's system through water, food supplies and occupational sources. Lead drinking pipes are frequently a source of contaminated water according to them, and insecticides sprayed on raw fruits and vegetables are another.

It would be interesting to have a chemical analysis made for the presence of mercury on similar tissue in patients where there is a history of having taken mercury in various forms therapeutically; also on tissue from patients who have a clear history of no mercury ingestion.

DIAGNOSIS

Krompecher calls attention to a group of benign cases of linitis plastica, which he termed "gastro-intestinal sclerostenosis." Leith, as quoted by Ewing, described a case of this type as noncancerous cirrhosis. The lesion involved stomach, ileum, and colon, but the microscopical report is somewhat lacking in details, although the author positively excludes carcinoma.

It is apparent from the literature that there are cases of linitis plastica that are not malignant. Boyd describes fibromatosis of the colon affecting any part of the large intestine, but more frequently in the pelvic colon, and the rectum. The bowel wall is thickened, due to the formation of dense inflammatory tissue in the submucous coat. The mucosa is nodular or polypoid, as in tuberculosis, and may be ulcerated.

Boyd further states that the exact cause of this condition is not known, but evidently is chronic inflammatory in nature. The infection probably gains access to the submucosa through the mucous membrane by some abrasion or other local lesion.

G. Faroy[2] reports three cases of plastic linitis, and he discusses the rôle of syphilis in the pathogenesis of this disease. He indicates that syphilis frequently is the cause of cirrhosis, and that it even plays a rôle in cirrhosis due to alcoholism or other intoxications; and that syphilis alone is able to injure the arterial coats separately and en bloc, as well as sclerosis in almost every other organ.

There is a difference in the gross specimen in this case and that of the so-called linitis plastica. The trained pathologist brings out these differences by touch, which indicates to him differences in elasticity and friability of the tissue. The photomicrographs (Figs. 2 and 3) are shown for direct comparison. It is immediately apparent that the gross appearance is vastly different between the photomicrograph of this case and the one of linitis plastica type of carcinoma of stomach.

SUMMARY

The demonstration of metallic mercury recovered in appreciable amounts from the tissue taken from the lesions in the stomach, terminal ileum, and colon, establishes a relationship with the gastro-intestinal sclerostenosis. I believe that mercury was the etiologic agent responsible for the vascular lesions found histologically.

1930 Wilshire Boulevard.

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2. Faroy, G.: Three Cases of Plastic Linitis—The Rôle of Syphilis in the Pathogenesis of This Disease, Archives des maladies de l'appareil digestive et de la nutrition, 14:616-634 (July), 1934.

A SIMPLE SPLINT FOR FORCED EXTENSION OF THE ELBOW*

By Gordon M. Morrison, M.D.
San Mateo

THE improved plaster now available makes possible the fabrication of many useful orthopedic devices, using the molded plaster instead of metal parts. The splint described is a modification of the diamond splint, and is useful for producing extension of joints fixed in flexion, as in stiffness of the elbow, following the healing of a fracture in flexion. This device was designed for such a case after prolonged attempts with physiotherapy gave poor results. Twenty-four hours after application, this stiff elbow joint, which was refractory to other types of treatment, was in complete extension. Construction of the appliance is self-explanatory from the illustrations.

TECHNIQUE

A circular plaster is applied over stockinette in two segments, one above and one below the affected joint. A one and one-half inch barn-door hinge is placed at the flexion angle and fixed in place with additional plaster. Two small, right-angle brackets are then incorporated near the distal ends of the plaster. The joint is next put through any possible movement to correctly align the hinge and brackets before the plaster is completely set. When the plaster is sufficiently dry, it is bivalved; the drilled tongue depressors are bolted into place, and a few elastic bands are placed, as shown in the diagram, and the apparatus is reapplied to the affected extremity, with bandage or adhesive.

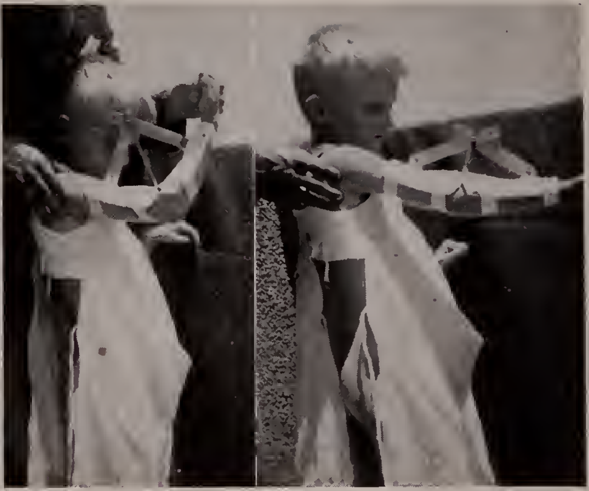

Fig. 1 Fig. 2

Fig. 1.—Splint applied to flexed elbow. Rubber bands under tension.

Fig. 2.—Elbow joint in extension. Rubber bands relaxed.

San Mateo Community Hospital.

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* From the Orthopedic Service of E. W. Cleary, M. D., Community Hospital of San Mateo County.

BILATERAL SALIVARY CALCULI

By H. P. Merrill, M.D.
Los Angeles

WHILE calculi in the salivary glands and ducts are fairly common, and there is no reason why they should not occur bilaterally, I can find no reference in the literature to such an occurrence. Two or more stones in the same gland or duct are mentioned, but one in each submaxillary duct is rather unique.

REPORT OF CASE

Case 1.—This patient, a man of thirty-seven, had gone through several attacks of pain and swelling along the left side of the jaw and under the tongue. These had been diagnosed as quinsy, and had subsided without much trouble or treatment. This time the pain and swelling were worse, and there had been some fever for three days.

The local physical signs were typical of a blocked submaxillary duct, with cellulitis of the floor of the mouth. There was some swelling externally. An incision along the floor released considerable pus and saliva. A hard mass was felt in the cavity at this time. The symptoms subsided rapidly, and three days later the calculus presented in the wound and was removed.

Before this wound had healed, the patient returned with pain and some swelling on the right side. A probe passed into the submaxillary duct touched a hard mass in about the same position as the one on the left. This calculus was also removed intraorally under local anesthesia.

Both calculi were oval and about 1.5 centimeters long by 0.75 centimeter in diameter. They were very hard, as compared with most salivary calculi.

458 South Spring Street.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

DYSMENORRHEA

ETIOLOGY AND PATHOLOGY

Lyle G. McNeile, M. D. (523 West Sixth Street, Los Angeles).—Unfortunately, the exact etiology of dysmenorrhea is still unsettled. Pathologic changes are not at all constant, and it is certain that no characteristic changes exist which would apply to all cases of dysmenorrhea.

As Curtis states, "Like eclampsia, dysmenorrhea is a disease of theories, and no single conception fits all cases. Many ideas, once implicitly accepted, have had to be discarded in the light of further knowledge." Most authors divide dysmenorrhea into two types, primary and secondary. The secondary type is caused by pathologic conditions in the pelvis, usually uterine fibroids, endometriosis, salpingitis, ovarian cysts, or chronic inflammatory disease. Since the etiology of the secondary type is known, surgical correction of the pathologic disturbance usually cures the menstrual pains.

Primary dysmenorrhea, on the other hand, is not associated with any abnormality in the pelvis, and there is no unity of opinion concerning the exact cause of this type of pain. The most current theory has been advanced by Novak and Reynolds, who are of the opinion that the immediate cause of dysmenorrhea is an exaggerated contractility of the uterus, manifested by pain, if the pain threshold is lowered, or if there is an actual unbalance between the two hormones that appear to regulate this. These two hormones are the follicular factor, the normal stimulant of uterine excitability, and progestin, the normal inhibitor. Other investigators believe that the pains associated with menstruation are due to an unbalance in the pelvic sympathetic system. It seems to the author probable that both factors are involved.

In his opinion, the rôle of malpositions of the uterus in producing dysmenorrhea has been greatly exaggerated. While it is true that both anteflexion and retroversion of the uterus are frequently associated with dysmenorrhea, the physician who assumes that the correction of these conditions will likely cure the dysmenorrhea is usually doomed to disappointment.

* * *

SYMPTOMS AND PROGNOSIS

Albert V. Pettit, M. D. (2000 Van Ness Avenue, San Francisco). — I find difficulty in profitably discussing this part of the symposium assigned to me without making occasional excursions into the field of etiology and therapeutics.

Let us first consider the symptoms of primary or essential dysmenorrhea, that is, that group not dependent on gross pelvic pathology even though it may at times be associated with it.

The symptoms of primary dysmenorrhea do not begin with the menarche, as is generally believed, but from one to ten years after the regular establishment of the menstrual flow. The symptoms begin as mild discomforts, gradually increasing in intensity until the menses are often completely incapacitating.

A typical attack begins shortly before the appearance of the flow, often as much as two days before. Usually the first symptom is pain, either cramp-like or steady, felt in the region of the uterus. This is often preceded by sacral backache and practically always accompanied by it. Headache occasionally with nausea and vomiting, sweating with cold skin and pallor quickly follow. These symptoms tend to increase until the flow is well established, when they suddenly subside. The suddenness with which the symptoms sometimes occur and later disappear is suggestive of allergic phenomena, but the sympatheticatonia may be entirely due to uterine pain, and the striking cure of these symptoms by presacral sympathectomy is very suggestive of this.

In certain cases all of the above symptoms are present, in others only a few; but it is surprising how often a careful history will reveal an alternation in the severity of the symptoms, a painful menstruation alternating with a relatively comfortable one. The one symptom most bitterly complained about is the backache from which the patient feels there is no escape.

In dysmenorrhea of the secondary type, that is, those in which gross pelvic pathology is responsible for pain, in the group made up of those having congenital stenoses or atresias, the lower abdominal pain begins with the menarche, and becomes very violent after two or three periods; so that menstruation in patients with complete obstructions show violent uterine pain with nausea, vomiting, shock, tender and often rigid abdomens, occasionally fever and later a palpable mass. In these cases there is pain with each menstruation, and all symptoms become progressively worse.

Secondary dysmenorrhea, due to endometriosis or adenomyoma, may appear at any time after the menarche, but usually after several years, often late in life. The symptoms cannot be distinguished from that of primary dysmenorrhea, showing essentially the same vagaries, but may begin several days before the onset of the flow; may be accompanied by a discharge of blood from the rectum, and may show marked evidence of peritoneal irritability. Palpable pelvic masses, without cervical infection with the above symptoms, make the diagnosis relatively simple.

Pain, which simply accompanies menstruation due to inflammation or with fibrosis and adhesions following inflammations, is generally adnexal in location and should be called menorrhalgia. In this group there is no characteristic time of appearance of the symptoms. In my experience, inflammations play an insignificant rôle in the production of menstrual pain.

It is impossible to give a prognosis which will cover all classes of dysmenorrhea.

Generally speaking, uncomplicated primary dysmenorrhea tends to disappear after the age of thirty, usually disappears after a pregnancy, and many persons are free from pain after regular intercourse is resumed. Unfortunately, many of these patients are very infertile. The cure in those who become pregnant is not necessarily due to the pregnancy itself, but to a correction of the endocrine imbalance, which also caused the sterility. Results of treatment in primary dysmenorrhea have improved markedly during the past few years, and one has only to mention the use of atropin, thyroid extract, emmenin, irradiation of the hypophysis, alcohol injection of the posterior uterine sympathetic nerve supply, and presacral sympathectomy, to indicate what may be done with good prospects of improvement and cure of the painful sensations arising in the uterus. Psycogenic components in varying degrees are present in practically all cases of dysmenorrhea due to the inevitability of recurrence. These components disappear rapidly after any real relief.

Treatment of congenital or acquired anomalies in the pathway for escape of menstrual discharges is surgical. Treatment of adenomyomata and endometriomata is effective by surgery, which is destructive, or by irradiation, which may or may not be destructive. In any event, the treatment of the pain has an excellent prognosis, but the child-bearing function is lost.

Treatment of menorrhalgias due to inflammatory disease is mainly hyperthermia, with or without surgery, which can be conservative. The prognosis is good in such cases.

An interesting suggestion as to the etiology of menstrual backache has been recently made by Dr. E. Chamberlain of Temple University, who thinks that it is probably due to a cyclic recurring sacro-iliac subluxation somewhat similar to the change in the pelvic articulations seen in pregnancy. Treatment of this menstrual backache as an orthopedic problem just as most, if not all other backaches in the female should be treated, may allow us to give a good prognosis in regard to this part of dysmenorrheal symptomatology also.

* * *

DIAGNOSIS AND TREATMENT

L. A. Emge, M.D. (Stanford University School of Medicine, San Francisco). — Dysmenorrhea (menorrhalgia), like headache, is only a symptom and not a pathologic entity nor a disease in the true sense of the word. Strictly speaking, the patient makes the diagnosis of dysmenorrhea, but the physician searches for the cause. This is a complex problem and demands painstaking attention to a number of details, without which treatment is haphazard and disappointing. It is self-evident that a good history is essential. Physical examination must be complete. Laboratory studies should include at least a complete blood count and, if possible, a B. M. R. determination. In my own work, I make it a point to obtain data which enable me to answer the following important questions:

1. When did pain occur first in relation to the menarche?
2. When does pain occur in relation to the individual menstrual cycle?
3. What is the type, location, and duration of pain, and what are the endocrine stigmata of the body; and are there reflex disturbances?
4. What is the type of uterus (shape, size, position)?
5. How does the physical make-up of the patient compare with diet, exercise, work, and body hygiene?
6. What is the relation of the functional or emotional constitution of the patient to the severity of the pain complained of (evaluation of pain)?
7. Does pelvic pathology exist; and if so, is it incidental to, or has it a bearing upon dysmenorrhea?

With these questions satisfactorily answered, one can readily determine whether dysmenorrhea is congenital or acquired. This is of importance because the former is frequently of endocrine origin, while the latter is more often of organic origin. So-called psychogenic types of dysmenorrhea may fit into either category and are the most difficult to diagnose.

Most of the functional or endocrine types of dysmenorrhea occur simultaneously with the onset of menstruation and usually last not more than twenty-four hours. Comparatively few women experience pain over longer periods. Such pain is usually severely spastic in type, and often accompanied by nausea and vomiting, with general prostration. This combination of pain and reflex disturbances is less often encountered in secondary or acquired dysmenorrheas. In the latter type, pain more frequently appears before menstruation, beginning as early as seven to ten days prior to the beginning of the flow. This may be indicative of pelvic inflammatory disease involving the ovaries, endometritis, endometriosis, adenomyosis, large submucous polyps, or pedunculated fibroids. Ovarian cysts rarely are accompanied by dysmenorrhea, and then only when secondary inflammatory changes are present in the pelvis. Likewise, uterine displacements, as such, rarely give rise to dysmenorrhea. Many developmental and positional anomalies are only part of a general developmental disturbance due to endocrine deficiencies, the latter being the real factor in pain production. This is most often the cause of primary or functional dysmenorrhea. One cannot stress this point too forcefully, for it is a patient of this type who so frequently is subjected to uterine suspension without relief from pain. At times dysmenorrhea accompanies acquired uterine displacements, and in my opinion is due to the formation of pelvic varicosities. Patients suspected of such a condition should be examined in a standing position. Only then can the enlarged veins be readily palpated. The insertion of a well-fitting pessary after replacement of the fundus is the best means to evaluate the importance of uterine displacements, so far as pain production is concerned. The type of pain which accompanies retroversion is very distinct for the two general types of dysmenorrhea. In the functional or endocrine group, pain is usually of the typically spastic type accompanied by reflex disturbances, while in the acquired group it is usually a disseminated pain radiating laterally along the posterior aspects of the thighs.

Next in importance in the diagnosis of dysmenorrheas is the evaluation of pain. This is a difficult task, requiring a keen appreciation and thorough understanding of the psychic make-up of women. Degrees of pain are undoubtedly differently interpreted by different individuals. This holds good for both patient and physician. Unless one delves into the functional behavior of the individual, one cannot be sure how much of the pain complained of is real, and how much of it is an expression of a defensive mechanism or some other form of a disturbed psychologic balance or emotional instability. I do not share the belief that all types of functional dysmenorrhea are purely psychogenic in origin, but I am convinced that numerous individuals magnify pain because of emotional instability. Later, when discussing treatment with such patients, this point must be stressed with tact and in a sympathetic vein, so that the patient may appreciate that her own efforts to forget her infirmity are a step toward a more speedy relief.

In the physical examination a careful observation of body stigmata will often give the clue to an endocrine disturbance. Blood and metabolism studies are indispensable for a careful diagnosis. Minor degrees of hypothyroidism are very common, and often the sole cause for dysmenorrhea. It is well known that anemic and chlorotic girls frequently suffer from dysmenorrhea. If properly diagnosed, these conditions are easily corrected. In the pelvic examination the size, shape, and position of the uterus should be carefully noted. The hypoplastic uterus frequently indicates hypopituitary disturbances. The infantile uterus is most often indicative of hypo-ovarianism, and the tall, bulky uterus which has not lost its infantile proportions is most frequently associated with hypothyroidism. Pelvic search for tumors, and fixations due to pelvic inflammatory disturbances, and endometriosis are next in importance. I should like to call attention to the fact that dysmenorrhea accompanying the latter condition invariably appears years after the onset of menstruation, and is characterized by the progressive severity of pain and by the appearance of pain late in the menstrual period, lasting for some days after the cessation of the flow. These patients also frequently complain of premenstrual soreness well distributed throughout the pelvis.

To recapitulate, the diagnosis of dysmenorrhea concerns itself with determining (1) the type of dysmenorrhea; (2) its relation to the menstrual cycle; (3) the evaluation of pain; (4) its localization; (5) the evaluation of the organic make-up; and (6) the evaluation of pelvic findings.

Unless one can make a careful diagnosis, the treatment of dysmenorrhea is about as unscientific as that of headache. I do not wish to imply that it is always possible to devise the proper type of treatment for every patient even after a very careful analysis of the complaint, but one can come close to such a goal.

Since there is a large group of young women who, under the stress of school, college, or business life, neglect their body hygiene, one should delve into their mode of living as well as their mental fitness, and give proper advice as to exercise and rest and mental hygiene. Sex questions must be cautiously and tactfully approached. In these days of diet fads many young women suffer from food deficiencies. Anemias should be corrected and a proper dietary regimen should be ordered regardless of the wishes of the patient to remain slim and boy-like. It has been advocated recently that a high carbohydrate diet, because of its influence on blood sugar, relieves dysmenorrhea, for it has been found that in certain individuals hypoglycemia and dysmenorrhea go together. As a rule, there is no reason why the average young woman should curtail her activities during menstruation, for there is no proof that moderate athletics have a detrimental influence on menstruation. Moderately hot baths or showers create no disturbances when used during the menstrual flow. In fact, in many instances minor types of dysmenorrhea are completely relieved if patients are permitted to continue their ordinary activities and make use of hot baths freely during the menstrual period. I have not hesitated to let young women take hot douches during menstruation in order to relieve pain, and I have never found that this procedure has created pelvic disturbances. To the contrary, heat applied in this manner, or in the form of a "sitz" bath, is good medicine, and is quite preferable to more radical procedures. In this connection, it may be of interest that in both primary and secondary types of dysmenorrhea the utilization of detergent suppositories is of a distinct benefit to the patient. For many years I have used such a suppository commercialized by Wyeth and marketed as No. 426, which, aside from the detergent agents, contains an anodyne. I order the patients to precede the use of these suppositories with a copious plain hot water douche, to be taken night and morning, beginning three days before menstruation and carried into the second day of the flow. This procedure has given immediate and often permanent relief after a few months of self-treatment. The patient soon learns how often and how long to use these agents. It saves her office visits and medical care, and often relieves her sufficiently from pain to continue her daily duties during menstruation with reasonable comfort. It is my experience that in obscure types of functional dysmenorrhea where endocrine therapy has failed, this simple procedure will give satisfactory relief.

Where dysmenorrhea is frankly due to an endocrine dyscrasia the choice of treatment may be very simple or very complicated. The simplest problem offers itself in thyroid deficiencies. It is rather interesting to know in this connection that in hypothyroidism dysmenorrhea is about as often relieved by the administration of thyroid as by iodin therapy. Individuals who present the picture of pituitary deficiency are frequently relieved by the administration of anterior pituitary-like hormones, of which there is a wide range of choice—antuitrin—S, follutein, Collip's A. P. L., and similar substances. The dosage is arbitrary, and is to be determined by the amount of relief experienced. Usually one to two cubic centimeters given hypodermically every other day for six doses preceding menstruation, will produce the desired result. The disadvantage of this treatment is the necessity of the patient's visits to the doctor's office. Therefore, whenever possible, one should try ether-washed emmenin, a placental hormone of the anterior pituitary-like type. This is taken by mouth in dosages varying from one to three teaspoonfuls daily. In my own experience it is about as efficacious as hypodermic medication, but not always well tolerated because of the harsh taste. It is best to start with a fairly liberal dose, reducing the amount after relief from pain has been experienced. It is not at all unusual to obtain permanent relief after two or three months of such a regimen.

Individuals of the hypo-ovarian type are often relieved by the administration of estrogenic substances such as theelin, amniotin, folliculin, folliculin menformon, progynon, and hypodermic agomensin, and other similar substances. Here, too, the dosage is arbitrary. The trend is toward larger doses up to 1,000 international units, given hypodermically every other day until relief from pain has been obtained. After this the interval is increased, and ultimately the dosage is reduced. Many of these substances are put up in oil and are not always well tolerated by every patient. The advantage claimed for the oil preparations is that they are absorbed more slowly, which permits longer intervals between injections. I am not certain that this is correct. The administration of the water-soluble types, such as folliculin menformon, is painless, but is said to require a longer continuation of administration at shorter intervals. I also doubt this statement. One must take into consideration the reaction of the patient in choosing the proper agent and the proper dosage.

The disturbing factor in treating dysmenorrhea related to endocrine disturbances is that, scientifically speaking, it is not always rational. One can understand that the anterior pituitary-like hormones such as emmenin, antuitrin-S, follutin, A. P. L., etc., will relieve a spastic uterus, because they also produce an increase in uterine and para-uterine vascularity. It is not so easy to rationalize the use of thyroid and iodin, and it certainly is not easy to explain the action of estrogenic substances, for they are supposed to produce a contraction of the uterus. Nevertheless, clinical experience and results justify the use of these substances, and at times demand an interchange or even a combination of substances. After all, it is the relief of the patient that counts, even if our efforts cannot be explained on a purely scientific basis; and in its final analysis it matters not whether the action of the substance is specific, pharmacodynamic, or psychotherapeutic. All of these factors are cleared up by time and usage. At this particular time our knowledge of the endocrine behaviors and their relation to our functional lives and our sympathetic nervous systems is still very obscure. Laboratory experimentation alone is not going to give us an answer as to how these substances work in the human being. We have to go on trying, and thus add to our store of knowledge by trial and error. The boost that has been given the poor sufferer from dysmenorrhea by the endocrine substances is the greatest advancement made in therapeutics in the field of gynecology.

The question of treatment of acquired dysmenorrhea due to inflammatory or neoplastic disturbances can be answered with few words. In the first place, comparatively few inflammatory disturbances are accompanied by dysmenorrhea, once they reach the chronic stage. An exception to this is endometriosis, and that rare disease endometritis! If the ordinary local treatments such as I have outlined bring no success, the various forms of intensified heat treatment are worth trying. Diathermy has not been successful in our hands. We have had no experience with the Elliott machine, but we have had extensive experience with hyperthermia given in the form of high-heat prolonged baths. The use of this method is rather new, and we can only give our impressions. I prefer to simply state that there is a field for this method. From other sources I have learned that hyperthermia induced by short-wave electric currents promises similar results. If any of these conservative forms of treatment fail to produce results, surgical methods are in order. The same holds true of dysmenorrhea due to benign neoplastic disturbances. Here surgery is usually preferable to irradiation, since the ovaries can be preserved.

I have left the discussion of surgical and mechanical therapy of functional dysmenorrhea to the last. At times when all other therapeutic measures have failed, we are forced to resort to mechanical treatment. It should be resorted to only after all simple methods have been exhausted. So-called intractable dysmenorrhea is very rare. Just what constitutes intractability depends in a large measure upon the state of mind of both patient and doctor. And may it be said without malice that the more patient the doctor the less the incidence of intractability—and clever hands are often the reason for a surgical approach to the problem, when a patient mind would have found an easier and often better way out.

The simplest form of mechanical treatment is the use of negative galvanism applied directly to the cervical canal. It can be used either in the form of a smooth or interrupted current, and must be given over a period of several months. The use of negative galvanism, which produces cervical dilation and increases the uterine blood supply, is in most instances preferable, and more permanent than forceful cervical dilation under an anesthetic. It is decidedly preferable to the stem pessary. It must not be used in the presence of cervicitis.

A very efficacious method of controlling dysmenorrhea, which has failed to respond to other measures, is the alcohol block of the paracervical ganglia, originally advocated by Blos. This method demands a keen sense of touch, and vivid visual memory of the relations of the structures in the immediate vicinity of the cervix. By passing a 20-gauge 3-inch needle through the posterior lip of the cervix into the paracervical tissue in the vicinity of the angle formed by the uterosacral and broad ligaments, five cubic centimeters of 5 per cent novocain in 70 per cent alcohol are injected slowly into the areolar tissue which contains Frankenhäuser's ganglia. One injection is usually sufficient, and gives relief to about 80 per cent of patients. A repeated injection relieves another 10 per cent. For those who are not relieved, we advise resection of the presacral nerve. Surgery of the displaced uterus is rarely necessary, and will give relief only if pain is due to unusual venous dilatation, varicosities and varicoceles of the pelvic circulation. No uterus should be suspended for dysmenorrhea without first having convinced one's self that replacement of the organ by a well-fitting pessary relieves the pain. Should the operation be indicated, the basal ligaments should be shortened and unusually large varicosities ligated.

When dysmenorrhea is known to be of inflammatory, neoplastic, or endometrial origin, destructive surgery is unavoidable.

Radiologic treatment of either the pituitary or ovarian regions is of very doubtful value and demands a critical interpretation. Doctors Newell and Pettit of this institution have recorded their studies, and they will appear in this JOURNAL in due season.

There then remains nothing further to say except that many women who suffer at the time of their menstrual periods are relieved spontaneously after they enter their "twenties." Childbirth and orderly sex life bring relief to untold thousands of others, while some go on suffering for the entire span of their menstrual life, learning to bear their burden just because they are women.

Psychic Behavior at High Altitudes.—Jongbloed investigated whether the oxygen deficiency would impair the alertness of an aviator flying at an altitude of 5,000 meters, pointing out that such heights occasionally are necessary when high mountains have to be crossed, particularly if cloudiness obscures the mountains. The alertness of the aviator is especially important in case of so-called blind flying that may be necessary on account of the cloudiness. The author found that the rarefaction of the atmosphere at the altitude of 5,000 meters causes only slight impairment of the mental alertness in the radio telegrapher. He found that the slowing down of the mental alertness was most noticeable in the choice reactions, the regularity being influenced more strongly than the duration of the reaction time. However, the author is convinced that a trained aviator can safely fly for about an hour at an altitude of 5,000 meters, but that a further increase in the altitude decreases the alertness rapidly and, for instance, blind flying during bad weather makes higher demands on the alertness of the aviator. Three of the author's test subjects had to breathe oxygen shortly after an altitude of 5,000 meters had been reached, while four others had difficulties. This indicates that at this altitude difficulties may be encountered in passengers, for, although the aviators can be selected in air transportation, the passengers cannot. Accordingly it is necessary to take measures so that air transportation will not cause difficulties even in the weakest of the passengers. The author states that an oxygen supply should be available for altitudes of more than 5,000 meters. However, he thinks that breathing-masks and other instruments are likely to alarm the passengers and should be avoided. He thinks that since the cabin of a modern plane has a regulable ventilation system, it would probably be possible to keep the oxygen tension high enough by forcing in a supply of oxygen.—*Klinische Wochenschrift.*

Age Incidence of Causes of Illness.—Collins presents the results of periodic canvasses of 8,758 white families living in 130 localities in eighteen states and including 39,185 individuals. Each family was visited at intervals of from two to four months for a period long enough to obtain a sickness record for one year. On the first call a record was made of the number of members of the household, together with data about sex, age, marital status, and communicable disease history of each person. On succeeding visits the canvasser recorded all illness that had occurred since the preceding call, with such pertinent facts about each case as the date of onset, the duration of disability and of confinement to bed, the nature of such medical service as was obtained, and the termination of the illness. The surveyed families include representation from nearly all geographic sections, from rural, urban and metropolitan areas and from all income classes, and consist of both native-born and foreign-born persons. The proportions of these various elements included are not identical with those in the population of the United States, but the variations are not generally large. In other respects also the surveyed group is not dissimilar to families in the general white population of the United States. The age incidence of all the specific diseases that were reported in sufficient numbers to approximate a reasonably accurate age curve are depicted in graphs and tables. While there are irregular chance variations in many of the curves, they serve to indicate the general picture of the age incidence of even the less frequent diagnoses.—*Public Health Reports.*

If one continues to ply one's mind, growth ensues, even in the years formerly supposed to be marked by stagnation and decay. To foster this growth one must not trust too much to the casual gains of everyday work and experience. One must put forth well-directed efforts. Merely to maintain one's status is not enough. He who is satisfied to stand still will soon slip backward. To grow one must go on learning. So it has come about that education, formerly thought to be an activity limited to the days of one's youth, is now seen in one form or another to be desirable in all periods of life. Thus one continues to improve; thus one keeps young.—Leon J. Richardson.

"Poor posture" is a sign that the child needs a careful and complete medical examination to discover the underlying cause of poor posture. The "poor posture," like toothache, is really nature's warning that something is wrong and the child needs the physician's help to discover what that "something" is and to tell him how to correct it. When the cause is removed or corrected, the poor posture usually disappears. Treat the child, not the posture.

Some of the grotesque attitudes in which children sit or lie have a real purpose back of them, for they relax the child's tired muscles and let him "rest up" most quickly.—LeRoy A. Wilkes, M. D.

The ladder of life is full of splinters, but they always prick the hardest when we are sliding down.—W. L. Brownell.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the iront advertising section (Adv. pages 2, 4 and 6).

CALIFORNIA MEDICAL ASSOCIATION

ROBERT A. PEERS..........President
EDWARD M. PALLETTE..........President-Elect
FREDERICK C. WARNSHUIS..........
Secretary-Treasurer and Associate Editor for California

STATE AND COUNTY SOCIETY ACTIVITIES

WHAT DID YOU SAY?

If you are tempted to reveal
A tale someone to you has told
About another, make it pass,
Before you speak, three gates of gold,
Three narrow gates—first, "Is it true?"
Then, "Is it needful?" In your mind
Give truthful answer; and the next
Is last and narrower: "Is it kind?"
And if to reach your lips at last
It passes through these gateways three,
Then you may tell the tale, nor fear
What the result of speech may be.

—From *The Arabian*, quoted in *The Rainbow*.

It is highly desired that members strive to conform to the above quoted advice. That there is a need for hesitancy and reflection in "What did you say" and how you said things, is evidenced by the increasing number of malpractice suits. In one county a 300 per cent increase in suits filed is recorded for the past year. Insurance companies are increasing rates and some are withdrawing coverage in certain counties and areas.

Primarily, many suits can be characterized as being wholly without merit, but masked in legal formalities and inspired by nonscrupulous lawyers, often sought and "worked up" by a lawyer. Next they are inspired by some physician who with premeditation utters to a patient derogatory comment upon the treatment rendered by another physician for revenge or spite. The seed is sown and the patient hurries to a lawyer, and suit is initiated. Many suits originate from remarks and comments spoken in a careless and casual way—call it a slip of the tongue if you wish.

These factors account for the increasing number of malpractice suits in this State. If physicians would refrain from thoughtlessly criticizing before or to patients the services rendered by another physician; if physicians would cease aiding attorneys in building up cases having no merit; if physicians would decline to testify against another physician unless the evidence clearly indicated malpractice—if these three 'dont's" were lived up to there would result a rapid decrease in the number of suits.

The plea is made that every member make it a point to so conduct himself and observe this manner of conduct.

* * *

CONVENTION PLACE 1937

Before submitting recommendations to the House of Delegates as to cities where accommodations are adequate for holding our annual session, the Council makes an investigation as to local facilities. In order that this may be done, county societies desiring to be hosts for the 1937 annual session are requested to send their invitations to the State Secretary before March 15. The invitation should be accompanied by a statement imparting hotel accommodations, meeting auditoriums, exhibit halls, and attraction features.

KERN COUNTY HOSPITAL DECISION

On January 31 the Fourth District Court of Appeals rendered a decision sustaining the Kern County Superior Court in determining that county supervisors could only hospitalize indigent cases in county hospitals. Full comment on this ruling and opinion will appear in our next issue.

* * *

ANNUAL DUES

Dues for 1936 are now payable. If you have not sent in your check, will you not please do so today? Your county and state membership is a valuable asset. Do not permit it to lapse. Help lessen the work of your county secretary by prompt payment of your dues. Then go a bit farther by securing the affiliation of that associate who is eligible for membership. Invite him to accompany you to a meeting and tell him why he should join. Our 1936 goal is 6,000 members. Will you help us to attain it?

* * *

COME UP AND SEE US

The editor of the *Journal of the Indiana State Medical Association* has seen fit to reprint the following paragraph.

> The first impression the observant medical man gets in California is that there are more superannuated candidates for the cemetery than to be seen in any other section. Their presence depresses and haunts you! Go to California to live? Go there to die!!

No comment is made by the editor, but the inference can be perceived. In response the following is reprinted from our January issue:

> An eastern surgeon, a university regent, and a man who has visited many clinics and medical meetings, not only in this country but all over the world, wrote in a personal communication:
>
> "After leaving San Francisco, Mrs. S. and I went to Southern California, gaining impressions of the country in general and medical conditions in particular. Incidentally, we met a great many old friends and had a thoroughly enjoyable and profitable time. I came home with renewed and fresh impressions of the excellence of the medical service performed by the good men of the profession out there. Certainly your standards are as high as any in the country and far better than in most parts of the country, and I think all of you there can be well satisfied with what you are doing. There is a certain newness and freshness, a tendency to break away from restricting traditions, and an enterprising spirit which is very apparent to one who visits California after a period of years."
>
> If eastern men would do as this surgeon did, come and spend two or three weeks in California, see and mingle with our members and gain first-hand information—well, eyes would see the light and there would be a new and better understanding.

To those of the profession who live and die east of the Rockies, we extend a cordial invitation to "Come up and see us." And to you in Indiana we assert that if you want to be "depressed" and "haunted" do not come to California, but visit and live in South Bend, Gary, Indiana Harbor, Hammond, with their barren sand dunes, swamp marshes, smoke, odor, and inhabitants of foreign birth. But if you desire to gain a new inspiration, to rid yourself of "depression" and "haunts"—come up and see us in California and learn whereof you comment. (Other editors please copy this *friendly* retort to our Indiana and Nebraska friends.) Afterthought: If you desire to die *young*, remain east of the Rockies. In California you *live* to a ripe old age midst pleasant lines and places—where men of eighty-five years root enthusiastically without pessimism. (Now it is your turn.)

MINUTES OF SECRETARIES' CONFERENCE

On January 18 the first annual conference of county secretaries was held in San Francisco. Every county organization except one was represented. The representative from Humboldt County, much to his regret, was unable to reach San Francisco by reason of heavy rains and obstructed roads. In addition to the secretaries, all the State Association officers and majority of the Council were present.

The announced program was followed. Each speaker presented valuable, useful information and advice related to organizational work, policies, and problems. The discussions clarified and advanced the features and purposes of organization. A stenographic record of the conference is being transcribed, and will be published in the March issue.

All in all it was a red-letter day in the history of our Association. County secretaries are our key men. It is they who cause our county units to apply policies and unite members into a centralized body for the purpose of attaining all ends and objectives of organizational endeavor. At this conference these key men obtained a better understanding of the purposes of organization. They returned home enlightened and imbued with the responsibilities of their office. It can be confidently assumed that as they report to their fellow members, all of our county organizations will reveal an awakened activity that will record enhanced benefits to all members.

The Council greatly appreciates the time contributed by these secretaries in attending this conference. Members are urged to coöperate with their county officers, to the end that there may be witnessed a bigger and better State Association. Watch for the March issue for detailed report.

* * *

PIONEER PHYSICIANS IN SISKIYOU COUNTY

An interesting bit of history by a member who has been in practice fifty-eight years:

Dear Doctor Warnshuis:

Noticing a reference to myself in the November number of California and Western Medicine (Vol. 43, No. 5, p. 372), and to some physicians whose fate I knew, I pass on to you the items:

Dr. Ridgeley was a middle-aged man when he practiced in Sawyers Bar, Siskiyou County, in the early 70's. Fate unknown.

Dr. Cabaniss, a Civil War surgeon, practiced at Fort Jones, California, in the early 70's. His son is, or was, a judge in Alameda County.

Dr. Furber died in Etna, also in the early 70's.

Dr. S. S. Harwood (a former Guy's Hospital student) died in the late 80's.

Dr. Helm died in Sawyer's Bar in the 90's.

Dr. Jewell died in Fort Jones in the late 80's.

Dr. McCash practiced in Sawyer's Bar early in 1877. Left and I know no more of him.

Dr. McNulty died in Yreka about 1917. Date known by Dr. Jones.

Dr. Ream died in Yreka. Date known by Dr. J. Roy Jones.

Dr. Smith died near Etna in the 80's.

Dr. Wadsworth dead. Dr. J. Roy Jones can give data.

Dr. Cowan died in Fort Jones. Dr. J. Roy Jones can give data.

Drs. Nutting and Tebbe, deceased, were former Etnaites; the former died in Etna, the latter in Weed, California.

The first medical society in Siskiyou County was organized some time in the 80's. As Siskiyou County Medical Society, it was affiliated with the State Society and both Dr. Nutting and myself were members. Owing to the difficulties of travel it lapsed into innocuous desuetude, but later reorganized and joined the State Society. When I came to Siskiyou County the railroad only reached Redding; much of our travel was over trails (all of mine until 1882). I commenced in Sawyer's Bar in 1877, later moving to the next town—Etna. I have stayed in Etna; still practice, drive my own auto, am health officer, and enjoy perusing California and Western Medicine.

Yours fraternally,

E. W. Bathurst, M. D.

"AMERICAN FOUNDATION STUDIES IN GOVERNMENT"

The following letter from the director of the Bureau of Economics of the American Medical Association should be of interest:

A considerable number of physicians throughout the United States have already received letters from the American Foundation Studies in Government requesting that they give their views informally on the present methods of medical practice and the degree to which medicine is now fulfilling its functions.

It was stated by Miss Esther Everett Lape, member in charge, that the Foundation has nothing to prove or to demonstrate to the Foundation Board. Miss Lape claimed, furthermore, that the information requested in the letters sent the physicians is not to be a statistical study; that neither the Foundation members nor the staff in charge have any preconceived notions, plans, programs or propaganda; that the study is to be confined to an endeavor to secure from practicing physicians statements of the factors involved in medical practice, opinions as to the extent to which the practice of medicine is fulfilling its functions, and expressions of the manner in which deficiencies or shortcomings in medical practice may be corrected if, and where, found. Miss Lape informed me that the Foundation desires to secure honest, complete, and well-considered statements; and that the correspondents' names will be withheld when desired. A considerable number of replies have already been received, and thus far the majority of the replies have given permission to use their statements in any legitimate way.

It appears, from Miss Lape's statements, that the compilation of the list of physicians to be circularized has not been completed and, therefore, all states have not yet been covered, but thus far about three thousand letters have been sent out. The returns, to date, number about 10 per cent of the letters mailed. It is expected that a much larger return will be received since many physicians have asked for more time in which to formulate their replies. The final list of physicians may reach ten thousand, more or less.

The final summary and digest of opinions and ideas will be prepared as a report to be sent to the correspondents whose material is used in the report for an examination prior to the release for publication.

Miss Lape, member in charge, expressed several times during the conference her anxiety over the activities of the small group in Washington which is attempting to change completely the existing social order. She expressed feelingly deep concern over the possibility of extending these reforms into the field of medicine. She was frank in expressing her opinion that some of these reforms might be merely a passing fancy, but if applied to medicine would result in a much greater social disaster than in other fields.

Information was offered by Miss Lape to the effect that the American Foundation has been engaged in other studies, such as the press poll of views of the World Court and views on Russian recognition. In each of these studies the Foundation has reported faithfully the views expressed by the writers, but at no time has it organized any propaganda or sought any objective except to present in an educational or informative way the actual uncolored facts or opinions.

Miss Lape wished it to be understood that the American Foundation's present undertaking to secure information from physicians is a bona fide effort to study certain phases of the economics of medicine by a method that has not been previously used. She stated that the Foundation is not so much interested in particulars, *per se*, as it is in the attitudes and opinions of physicians who can speak from experience on the way in which medicine is practiced and the manner in which it is meeting its obligations. Miss Lape assured me that there were no interests in the American Foundation seeking to forward any new theory or revolutionary scheme.

Miss Lape assured me that she and the American Foundation desire to keep in close contact with the American Medical Association and will welcome any suggestions, criticisms or assistance in the present study. She stated that the Foundation will be glad to answer any questions and will place the study in the Association's hands for examination if desired.

This is a report of statements made to me by Miss Esther Everett Lape and contains none of my personal opinions.

R. G. Leland, M. D.,
Director, Bureau of Medical Economics.

POLL ON HEALTH INSURANCE

The tables impart the segregated vote by county tabulation of the returns upon the following questions submitted to the licensed physicians of California.

Questions:

1. Shall the California Medical Association endorse any legislative change in the present system of medical practice?

2. Are you in favor of compulsory health insurance?

3. Are you in favor of voluntary health insurance?

(*a*) Voluntary health insurance under a plan carried on by the State of California?

(*b*) Voluntary health insurance carried on by lay companies under legislative control.

(*c*) Voluntary health insurance carried on by some form of organization of licensed physicians of California, created by legislation?

4. Are you a member of the California Medical Association?

Interpretation of these returns can now be formulated by the individual member. The returns present an interesting picture of the composite opinion of the licensed physicians and surgeons of California.

HAPPENINGS OF THE MONTH

1. Council meeting, January 19. See important items in the minutes published in this issue, on page 120.

2. Committee on Public Relations. See report in Department of Public Relations in this issue of a conference held with representatives of medical staffs of hospitals on the question of hospital insurance. Your constructive recommendations will be welcomed.

3. San Diego Fair. Association accepts control and supervision of a separate building containing 22,000 square feet exhibit space, to be known as the Hall of Medical Science. In coöperation with the San Diego County Medical Society an outstanding educational exhibit of scientific medicine and preventive medicine is being prepared.

4. Plans for an Association sponsored program for malpractice insurance is being developed. Doctor Reinle's committee will present a full report to the House of Delegates.

5. Read editorials, Association news, and Department on Public Relations for important details of actions that are of vital interest to every member.

Result of Vote on Referendum No. 2

I. By Members of the California Medical Association

County	Question No. 1		Question No. 2		Question No. 3		Question No. 3A		Question No. 3B		Question No. 3C		No. of Members
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Alameda	76	73	21	136	108	42	7	72	13	73	97	25	172
Amador	1	..	2	1	1	..	..	1	..	1	1	..	2
Butte	4	8	2	12	7	5	1	5	1	4	7	2	13
Calaveras	1	1	1	1	..	1	..	2	..	2	1	1	2
Colusa	1	1	..	2	2	..	..	..	..	..	2	..	3
Contra Costa	4	2	1	6	3	3	2	2	1	2	4	1	9
Del Norte	2	..	2	..	1	..	..	..	..	1	1	..	2
Eldorado	1	1	1	1	1	1	..	2	..	2	2	..	2
Fresno	8	11	4	11	11	6	1	8	1	9	11	4	22
Humboldt	6	6	2	8	5	4	3	3	..	7	6	3	12
Imperial	3	5	2	7	2	6	..	4	3	1	2	3	10
Inyo	1	..	..	1	1	..	..	1	..	1	1	..	1
Kern	7	9	6	10	5	10	2	6	..	8	6	6	17
Kings	5	3	2	5	1	5	..	2	..	2	2	1	8
Lake	2	1	1	2	..	1	..	..	1	..	..	..	3
Lassen	1	..	1	..	1	..	1	..	..	1	..	..	1
Los Angeles	272	402	103	477	417	237	59	288	53	290	397	107	732
Madera	2	..	..	1	2	..	1	..	..	1	2	..	2
Marin	5	8	4	7	10	5	3	3	..	4	9	2	17
Mariposa	1	..	..	1	1	..	..	1	..	1	1	..	1
Mendocino	2	..	1	3	3	..	..	2	1	1	2	..	4
Merced	3	8	1	8	5	5	..	2	1	3	4	2	11
Modoc	..	..	..	..	..	..	..	..	..	..	..	..	..
Mono	..	1	..	1	1	..	1	..	1	..	..	..	1
Monterey	6	..	3	3	3	2	..	4	..	4	3	..	6
Napa	1	9	..	9	5	3	..	7	..	7	8	2	13
Nevada	..	3	1	3	1	1	..	1	1	1	1	..	4
Orange	12	18	4	26	19	12	3	8	3	13	17	4	33
Placer	5	6	2	7	5	2	..	4	..	4	5	..	11
Plumas	1	1	..	1	2	..	..	1	..	1	2	..	2
Riverside	12	17	1	31	20	13	3	10	2	12	16	6	33
Sacramento	10	37	3	44	26	23	6	14	6	15	18	7	51
San Benito	2	1	1	3	1	2	..	1	1	..	1	1	4
San Diego	41	77	11	110	64	54	15	45	5	54	60	27	148
San Francisco	153	140	174	99	138	110	19	114	25	107	135	38	319
San Joaquin	9	18	5	21	19	7	4	11	1	13	17	3	30
San Luis Obispo	10	16	2	21	14	5	3	6	..	9	17	2	26
San Mateo	3	3	1	4	4	..	..	3	..	3	4	..	6
Santa Barbara	22	23	13	30	29	12	3	18	2	17	25	8	51
Santa Clara	23	29	21	34	31	17	5	18	5	18	31	7	66
Santa Cruz	6	6	2	10	9	3	1	3	2	3	6	1	12
Shasta	..	3	1	1	..	2	..	1	..	1	..	1	3
Sierra	1	1	..	2	1	..	..	2	..	2	2	..	2
Siskiyou	4	3	1	4	6	1	..	6	..	5	5	1	7
Solano	4	2	1	3	3	2	1	4	..	4	2	3	6
Sonoma	8	10	4	16	12	6	6	7	..	11	8	7	20
Stanislaus	1	4	..	4	2	3	..	3	..	3	3	2	6
Tehama	..	2	..	2	1	1	..	1	..	1	1	1	2
Trinity	..	1	..	2	2	..	..	2	1	1	1	1	2
Tulare	6	11	3	11	6	7	2	2	..	2	5	..	17
Ventura	10	5	3	14	14	3	1	12	..	12	14	..	17
Yolo	2	4	3	4	4	3	1	3	..	4	1	2	7
Yuba	3	5	1	8	4	3	1	1	2	1	2	1	9
San Bernardino	23	29	7	48	39	11	4	26	7	21	31	12	56
Total	746	1,026	424	1,276	1,265	639	159	702	139	751	429	171	2,014
*Miscellaneous votes	37	35	21	49	34	24	12	24	4	28	28	14	75
	783	1,061	445	1,325	1,299	663	171	726	143	779	457	185	2,089

* Out-of-town members, unreadable cancellation marks, etc.

ELECTION OF A. M. A. AND C. M. A. OFFICERS: ANSWERS TO A LETTER

The following questions were received from a San Joaquin member. The answers sent him are published for the information of other members.

Q. Who elects the delegates to the American Medical Association and from what body are they chosen?

A. County societies elect from their membership one delegate for every fifty or major portion thereof of local members. These delegates constitute the House of Delegates of the State Association. The House of Delegates of the State Association elect the state delegates to the American Medical Association from the state members who have been fellows of the American Medical Association for a period of two or more years. California has seven national delegates who, with delegates from other states, constitute the American Medical Association House of Delegates. That body is limited to 175 delegates.

Q. Who elects the officers of the American Medical Association, and from what body are they chosen?

A. The House of Delegates, upon nominations made on the floor, elect the American Medical Association officers from those who are fellows of the Association.

Q. Who appoints the editor of the *Journal of the American Medical Association?*

A. The Board of Trustees appoints the editor. The Board of Trustees, nine in number, is the interim governing body of the national organization. It convenes four times a year. It has an Executive Committee that convenes monthly.

Result of Vote on Referendum No. 2

II. By Non-Members of the California Medical Association

County	Question No. 1		Question No. 2		Question No. 3		Question No. 3A		Question No. 3B		Question No. 3C		No. of Voters
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Alameda	20	24	10	31	22	13	10	6	3	12	17	6	49
Amador	..	..	..	..	..	..	..	..	..	..	..	..	..
Butte	1	..	..	1	1	..	..	..	..	..	1	..	1
Calaveras	..	..	..	..	..	..	..	..	..	..	..	..	..
Colusa	..	..	..	..	..	..	..	..	..	..	..	..	..
Contra Costa	1	..	1	..	..	..	..	..	..	..	..	..	1
Del Norte	..	..	..	..	..	..	..	..	..	..	..	..	..
Eldorado	1	..	..	1	1	..	..	1	1	..	..	1	1
Fresno	6	3	2	4	5	2	1	4	..	3	4	..	9
Humboldt	1	1	..	2	2	1	1	..	..	1	2	1	5
Imperial	..	..	..	..	..	..	..	..	..	..	..	..	..
Inyo	..	1	1	1	..	..	..	..	..	..	..	..	2
Kern	1	3	..	5	3	2	..	3	1	2	2	2	5
Kings	..	1	..	1	..	1	..	..	..	..	..	..	1
Lake	..	1	..	1	..	1	..	..	..	..	..	..	1
Lassen	1	..	1	..	1	..	1	..	..	1	..	..	1
Los Angeles	113	185	58	242	149	120	31	105	36	104	112	64	351
Madera	..	1	..	1	..	1	..	..	..	..	..	..	1
Marin	..	1	..	1	1	1	1	..	..	..	..	..	2
Mariposa	1	..	..	1	1	..	..	1	..	1	1	..	1
Mendocino	2	1	3	2	..	3	1	..	..	..	1	..	5
Merced	..	1	3	..	..	..	..	..	..	..	..	..	1
Modoc	1	1	..	2	1	..	..	..	..	..	..	..	2
Mono	2	..	..	..	2	1	..	..	..	..	2	..	2
Monterey	1	1	1	1	1	1	..	1	..	1	1	..	2
Napa	..	2	1	1	1	..	1	..	..	1	..	1	3
Nevada	1	..	1	..	..	..	..	..	..	..	..	..	1
Orange	1	4	..	4	2	1	2	3	2	3	2	..	6
Placer	1	2	..	3	2	1	..	..	..	..	2	..	3
Plumas	..	..	..	..	..	..	..	..	..	..	..	..	..
Riverside	3	6	1	5	5	3	..	2	..	2	6	..	9
Sacramento	2	4	..	5	3	3	1	1	..	1	2	1	6
San Benito	..	1	..	1	..	1	..	..	..	..	..	..	1
San Bernardino	..	4	1	4	2	1	..	1	..	..	..	2	5
San Diego	12	22	10	27	14	15	3	11	2	12	14	8	43
San Francisco	46	53	21	80	48	43	9	36	10	31	40	15	116
San Joaquin	6	7	..	10	9	4	..	4	1	3	8	1	14
San Luis Obispo	1	5	..	4	3	2	..	3	..	3	3	1	6
San Mateo	..	3	1	2	2	2	1	..	1	..	1	1	4
Santa Barbara	1	1	..	2	2	..	1	..	..	..	1	..	4
Santa Clara	9	3	2	10	9	1	1	6	2	5	3	3	16
Santa Cruz	..	2	1	1	..	1	..	..	..	..	..	..	2
Shasta	1	3	1	3	2	2	..	2	..	2	2	..	4
Sierra	..	..	..	..	..	..	..	..	..	..	..	..	..
Siskiyou	..	..	1	..	..	..	..	..	..	..	1	..	1
Solano	..	4	..	6	1	4	1	1	..	2	1	2	6
Sonoma	2	1	1	1	1	1	..	..	..	..	1	..	3
Stanislaus	..	1	..	1	1	..	..	1	..	..	1	..	1
Tehama	..	..	..	..	..	..	..	..	..	..	..	..	..
Trinity	1	1	..	1	1	..	..	1	..	1	1	..	2
Tulare	2	..	..	3	2	1	1	1	1	..	1	..	3
Ventura	2	2	1	3	3	1	1	2	1	1	3	2	6
Yolo	2	..	1	1	1	..	..	1	..	1	1	..	2
Yuba	..	..	1	..	..	..	..	..	..	..	..	1	1
Total	245	357	122	468	207	232	68	194	59	190	143	112	709
*Miscellaneous votes	15	20	10	26	22	10	5	13	2	9	17	3	35
	260	377	132	494	229	242	73	207	61	199	160	115	744

* Out-of-town physicians, unreadable cancellations, etc.

Referendum No. 2: Summary

Total Vote

	Yes	No
1. Shall the California Medical Association endorse any legislative change in the present system of medical practice?	1,043	1,438
2. Are you in favor of compulsory health insurance?	577	1,819
3. Are you in favor of voluntary health insurance?	1,265	905
A. Voluntary health insurance carried on by the State of California?	244	933
B. Voluntary health insurance carried on by lay companies under legislative control?	204	978
C. Voluntary health insurance carried on by some form of organization of licensed physicians of California created by legislation?	617	300
4. Are you a member of the California Medical Association?	2,089	744

COUNCIL MINUTES

Minutes of the Two Hundred and Fortieth Meeting of the Council of the California Medical Association

The following minutes were approved by the Council by mail vote.

Held in Room 214, Sir Francis Drake Hotel, San Francisco, Sunday, January 19, 1936, at 9 a. m.

1. **Call to Order.**—The meeting was called to order by Vice-Chairman Morton R. Gibbons, with the following members present: President Robert A. Peers, President-elect Edward M. Pallette, Speaker W. W. Roblee, Councilors Karl L. Schaupp, Carl Howson, Henry J. Ullmann, A. E. Anderson, A. L. Phillips, Henry S. Rogers, C. L. Emmons, Morton R. Gibbons, W. H. Kiger, C. E. Schoff, C. O. Tanner; Chairman of Public Relations Committee Charles A. Dukes, Editor George H. Kress, Secretary F. C. Warnshuis, and General Counsel Hartley F. Peart. T. Henshaw Kelly and O. D. Hamlin arrived after the meeting had convened.

Absent: Harry H. Wilson.

2. **Delegates to the American Medical Association.**—Junius B. Harris, on account of the press of other duties, submitted his resignation as delegate to the American Medical Association, as follows:

"*To the Council.*—I hereby tender my resignation as delegate to the American Medical Association for the session of 1936, to take effect immediately.

(Signed) J. B. Harris."

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Kiger, that the resignation of Doctor Harris be accepted. Carried.

On nomination of President-elect Pallette, seconded by President Peers, F. C. Warnshuis was elected delegate to the American Medical Association for the 1936 session of the House of Delegates, in accordance with constitutional provisions.

Chairman of Public Relations Committee Dukes stated that he believed it would be impossible for him to attend the 1936 American Medical Association session and asked that his resignation be considered.

It was moved by Councilor Schaupp, seconded by Councilor Ullmann, that the resignation of Doctor Dukes as delegate to the American Medical Association be referred to the Executive Committee for consideration and action. Carried.

At this point Chairman Kelly took the chair.

2a. **Redistricting Councilor Districts.**—It was moved by Councilor Gibbons, seconded by Chairman of Public Relations Committee Dukes, that a committee of three be appointed from the Council to study the matter of redistricting councilor districts of the State and report to the Council, which shall submit recommendations thereon to the House of Delegates at the next meeting. Carried. (The committee appointed consisted of Doctors Rogers, Schoff, and Ullmann.)

3. **Ross-Loos Appeal.***—The secretary read the opinion and decision of the Judicial Council of the American Medical Association sustaining the appeal of Clifford Loos and Donald Ross.

It was moved by President Peers, seconded by Councilor Gibbons, that the secretary be instructed to send a copy of the decision to the Los Angeles County Medical Association and to advise them that upon receipt of the dues of Doctors Ross and Loos, they will be considered as members in good standing in the California Medical Association. Carried.

AMERICAN MEDICAL ASSOCIATION
535 NORTH DEARBORN STREET
CHICAGO, ILLINOIS

January 14, 1936.

F. C. Warnshuis, M. D.,
Secretary, California Medical Association,
San Francisco, California.

Dear Doctor Warnshuis:

Please find enclosed the official opinion of the Judicial Council of the American Medical Association in the case of the appeal of Dr. H. Clifford Loos and Dr. Donald Ross from the decision of the Council of the California Medical Association affirming the action of the Los Angeles County Medical Society, by which action Doctors Loos and Ross were expelled from membership.

Yours very sincerely,
(Signed) OLIN WEST.

* * *

Opinion and decision of the Judicial Council of the American Medical Association in the case of the appeal of Dr. H. Clifford Loos and Dr. Donald Ross from the decision of the Council of the California Medical Association affirming the action of the Los Angeles County Medical Association expelling said members from membership therein.

The authority of the Judicial Council in the appeal of Doctors Loos and Ross and similar cases is clearly outlined and delimited in the by-laws of the American Medical Association, Chapter IX, Section 1, in the following words:

> "The judicial power of the Association shall be vested in the Judicial Council, whose decision shall be final. . . . In all cases which arise . . . (*c*) between a member or members and the component society to which said member or members belong . . . the Judicial Council shall have appellate jurisdiction in questions of law and procedure, but not of fact."

The above constitutional limitation on any review of the merits of a case therefore prevents the Judicial Council from expressing any opinion as to the guilt or innocence of the appellants in connection with any unethical practices alleged and charged against them.

Therefore, the questions upon which this Council must render the decision are: (1) Were the appellants properly and lawfully apprised of and charged with an offense; (2) were they properly and lawfully tried; and (3) were the procedures fair, just, and without material error.

The provisions for the disciplining of members appearing in the by-laws of the Los Angeles County Medical Association are as follows:

> "Article 2, Section 5. Whenever a member of this Association is charged with a criminal offense or gross misconduct, either as a physician or as a citizen, or is charged with the violation of any of the provisions of the Articles of Incorporation and By-Laws, he shall be notified by the Board of Councilors to appear before that body within ten days to show cause why he should not be censured, suspended or expelled." "After a full hearing of the case, the Board of Councilors have power by a three-fourths vote to censure, suspend or expel the member without written or verbal explanation of its reasons, such action to be effective only after a right to appeal to the Council of the California Medical Association is given the accused."

The record shows and no denial by either appellant or respondent is made, that on a certain date the appellants were served with a notice to appear eleven days later before the Council of the Association to show cause why they should not be censured, suspended or expelled from membership. No statement of definite charges nor indication of the nature of any charges were contained in the summons. Upon receipt of the summons the appellants, by telephone, inquired from the secretary of the Association what the nature of the inquiry would be, whether they should bring their books or witnesses and whether they should be attended by their attorney. As stated by the secretary,

> "the reply was in rough terms that the Council wanted to inquire into their relationship to advertising matter, particularly the circular that had just been circulated among the teachers of the Los Angeles County schools.

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* EDITOR'S NOTE.—References to the Ross-Loos appeal were printed in the council minutes, as follows:

Vol. 42, No. 1 (January, 1935), page 48, items 8 and 10.
Vol. 42, No. 1 (January, 1935), page 50, item 1.
Vol. 42, No. 1 (January, 1935), page 54, item 30.
Vol. 42, No. 2 (February, 1935), page 130, item 10.

> He asked me if they should bring attorneys, and I told him that usually the discussions before the Association were between members and the Council, and he asked should we want their books or witnesses, and I told him usually they were not brought, but that he could do as he wished." "My answers to him over the telephone were guided by an attempt to be as noncommittal and impersonal as I could."

Doctor Loos and Doctor Ross appeared as cited, and a report of the Association's Medical-Legal Committee was read in which definite charges were made, supported by direct statement of the committee, that the matters reported were true. Certain other matters were charged on the basis that "we are informed that." Doctor Loos and Doctor Ross denied all charges, explaining each one, and offered to bring legal evidence of the truth of their statements "if the Council wished." A general discussion developed during which matters not contained in the Medical-Legal Committee's report were included, after which Doctor Loos and Doctor Ross were excused. Following their retirement the Council voted to expel Doctor Loos and Doctor Ross, and also adopted the report of the Medical-Legal Committee.

It is a fundamental principle of American jurisprudence (1) that a person shall be considered innocent until he has been proved guilty; (2) that an accused person shall know of what he is accused; (3) that he shall have adequate opportunity to defend himself; (4) that he shall not be punished for an act not included in the charges against him; and (5) that he shall have a fair trial.

Every one of the above five principles was violated in the trial of this case before the Council of the Los Angeles County Medical Association. There is nothing in the record of this case and nothing in the hearing before the Judicial Council showing that these men had been proved guilty of anything covered by the report of the Medical-Legal Committee of the County Association.

No supporting evidence to that report was offered, and so far as the record shows, the committee, on the one hand, charged offenses and the appellants, on the other, denied them. The appellants at the time offered to submit proof of their denial, which later, in fact, they did in the form of sworn statements by officials of the organizations involved, which were presented in the appeal of the appellants to the California Medical Association. On the side of the Los Angeles County Medical Association was only circumstantial evidence sufficient to cause strong suspicion, but insufficient to convict.

No indications of what the charges were appeared in the summons to appear and show cause. The appellants tried to learn from the proper officer, the secretary of the Association, what the charges were. Instead of informing them, if indeed he knew since the report of the Medical-Legal Committee which constituted the charges was not adopted by the Board of Councilors until after the hearing was held, the secretary himself testified that he answered the inquiry "in rough terms that the Council *wanted to inquire* into their relationship to advertising matter." He also testified that in answer to the question as to whether the appellants should bring attorneys that "usually the *discussions* before the Association were between members and the Council." He carefully evaded any appearance of there being a formal trial and avoided telling them of what they were charged. They were, doubtless, lulled by the appearance of informality and dissuaded thereby from bringing supporting evidence to any statement they might wish to make by the absence of any charges in the summons and the evasiveness of the secretary in answering their inquiries as to the character of the charges. It is quite apparent that, whether guilty or not, they did not have a fair trial.

The by-laws of the California Medical Association, providing for the disciplining of the members of all its component county medical societies, are as follows:

> "Chapter 11, Section 3. No member of a component county society shall be deprived of his membership unless by his own act, except by a two-thirds affirmative vote of all the active members in good standing of the component county society to which he belongs, present and voting at a regular meeting thereof, or by a two-thirds vote of its Council or Board of Directors, present and voting at a regular meeting thereof, and only after at least six weeks' written notice personally delivered to the member has been served upon him, fully stating the charges against him, and only after such member shall have been given full opportunity to be heard in his own defense at such meeting."

The by-law of the California Medical Association is explicit, fair, just, and does not offend the principle of proper protection of the rights of membership in the county, state, and national organizations. The similar by-law of the Los Angeles County Medical Association, on the contrary, is vague, unfair, arbitrary, and fails to give adequate protection to every member of that society. At any time a small group of members having obtained positions of authority may use such authority against any member said group elects to prosecute or persecute and the member has only the protection of a time-consuming, expensive appeal to the Council of the State Association or the Judicial Council of the American Medical Association.

The California Medical Association is the creative and authoritative body over the Los Angeles County Medical Association. The County Medical Association is a unit in organized medicine because of the charter granted it by the said State Association. Therefore a by-law of the county society inconsistent and in conflict with a similar one of the State Association is null and void. The by-law of the California Medical Association, previously quoted, provides that "no member of a component society" shall be deprived of his membership except as provided therein. This covers the membership of the Los Angeles County Medical Association as well as the membership of every other component society.

It is admitted by the respondents that the whole procedure in the Los Angeles County Medical Association was irregular and prejudicial to the interests of the appellants, that they were entitled to the protection of the by-law of the State Association, but that by answering the summons, attending the meeting as directed and defending themselves against the report of the Medical-Legal Committee, they waived those rights provided by the State Association by-law. The Judicial Council is not impressed by this argument. The record shows that several times previous to this action the appellants had been called before the Society's representatives for discussion and explanation of their operations; that at no previous time had such formal notice been given and, therefore, an effort was made to learn from the proper officer what matter would be brought up, in order to be properly prepared; that appellants were lulled by that officer's evasiveness; that because of that evasiveness they were not prepared to present denial supported by legal evidence, but that they offered to obtain such evidence; that, in fact, they did produce such sworn evidence before the Council of the State Association later on. If a claim of waiver is to be made, it is the obligation of the party making the claim to show that there was an intent to waive. Such an intent cannot be assumed simply because an accused cited to appear does so appear and make general denial, and especially if the accused offers to produce further evidence by witnesses not then available to support the denials.

For the following briefly summarized reasons, viz., (*a*) the appellants were brought to trial with no definite knowledge of what they were charged, (*b*) they had no adequate opportunity to defend themselves, (*c*) they were expelled for some unknown act not appearing in the charges, and (*d*) they did not have a fair trial, which appear in full in the above analysis, the Judicial Council supports the appeal of Dr. H. Clifford Loos and Dr. Donald Ross from the decision of the Council of the California Medical Association, which affirmed the action of the Los Angeles County Medical Association expelling said physicians from membership therein.

George Edward Follansbee, M. D.
Walter Donaldson
George Noland
John H. O'Shea

January 2, 1936.

4. **Kern County Membership Appeals.** — The secretary read the notice of appeal from the action of the Kern County Medical Society Board of Directors expelling Joe K. Smith from the Kern County Medical Society and suspending J. M. Kirby and R. M. Jones for a period of fifteen years, and H. H. Rogers for a period of five years,

signed by these physicians and filed in the office of the Association.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Schaupp, that a committee of the Council be appointed to exert proper efforts at conciliation and compromise in the matter of these expulsions and suspensions from the Kern County Society, prior to the hearing of the appeal. Carried. (The committee appointed consisted of Doctors Howson, Anderson, and Ullmann.)

5. **San Francisco County Membership Appeals.**—The secretary reported that notice of appeal from the action of the San Francisco County Board of Directors in suspending Ferd W. Callison for a period of fifteen years, and request for hearing relative to the suspension by the San Francisco County Society of Herbert J. Cohn for a period of ninety days, had been filed in the office of the Association.

It was moved by Councilor Kiger, seconded by Councilor Ullmann, that a special committee of the Council be appointed to exert proper efforts at conciliation and compromise in the matter of suspensions from the San Francisco County Medical Society. Carried. (The committee appointed consisted of Doctors Dukes, Hamlin, and Rogers.)

6. **Date of Next Council Meeting.**—It was moved by President-elect Pallette, seconded by Speaker Roblee, that the next meeting of the Council be held at the Sir Francis Drake Hotel, San Francisco, on Saturday, April 11, 1936, at 9 a. m., and that the hearing of the appeal of Kern County members be held at 10 a. m. of said day, and the hearings of appeals of San Francisco County Society members be held at 2:30 p. m. of said day. Carried.

7. **Conduct of Hearings.**—Chairman of Public Relations Committee Dukes raised the question as to whether or not members presenting appeals might be represented by attorneys at law.

After discussion it was the consensus of opinion of the Council that members desiring to be represented by attorneys might secure such services under the limitations set forth at the hearing by the chairman of the Council.

8. **San Diego Fair Exhibits.**—The secretary reported on the exhibit to be conducted under the auspices of the California Medical Association and the San Diego Society at the San Diego Fair, and read a letter from the American Medical Association signifying its willingness to exhibit if the supervision and control was under the medical association.

Clarence G. Toland, chairman of the Association's Committee on the San Diego Fair Exhibit, presented a detailed report on the proposed exhibits and a list of participants, and stressed the necessity of supervision of the entire exhibit by someone trained in the preparation and control of scientific exhibits.

It was moved by Councilor Ullmann, seconded by Councilor Kiger, that the California Medical Association offer the services of its secretary to the San Diego County Medical Society and the Fair Management in the development of a medical exhibit and that the expenses of the secretary be paid by the Association. Carried.

9. **Malpractice Insurance.** — George G. Reinle, chairman of the Committee on Medical Defense, submitted a detailed report on the present situation of medical defense and suggested that the Council appoint a committee to make a further study of the most desirable solution of the problem.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Emmons, that the Committee of Medical Defense and such advisory committee as may be appointed by it, be authorized to make a further study of the matter. Carried.

The necessity of securing aid of a trained insurance man in collection of actuarial statistics was discussed, and on motion of Councilor Gibbons, seconded by President Peers, John G. Johnson Co. was authorized to make negotiations with various insurance companies and submit a plan for medical defense insurance.

The letter designating Mr. Johnson as broker follows:

John G. Johnson Company,
San Francisco.

Gentlemen:

You are hereby appointed by the Council of the California Medical Association the sole insurance broker of the Association to devise plans and to negotiate for medical malpractice insurance, including both legal defense and indemnification to cover members of the California Medical Association.

It is understood that this is without obligation to the California Medical Association, and that no plan or policy will be effective until approved in all details, in writing, by the Council of the California Medical Association. This appointment may be terminated as set forth in our letter of transmittal.

Yours very truly,
F. C. Warnshuis, *Secretary.*

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John G. Johnson Company,
Russ Building,
San Francisco.

Gentlemen:

The Council of the California Medical Association hereby nominates and appoints you as its sole insurance broker upon the following terms and conditions and for the duration of time hereinafter stated.

1. *Services and Limitations:* In your capacity as insurance broker for the Council of the California Medical Association you are to devise plans of, and to negotiate for, insurance policies of such conditions and terms as to provide for the members of this Association, legal defense in the event that actions are brought against them for malpractice and to indemnify a member whenever such action results in a judgment for damages against him.

2. Acceptance of Policies, Terms and Premiums: Before any plan of form of malpractice insurance protection for the members is executed all the terms, conditions, procedures, coverage and policy provisions shall be submitted to the Council of the California Medical Association for its final endorsement and approval. It is specifically stipulated that this Council or any of the members of this Association shall not be under any obligation to you or any insurance carrier until final approval and agreement shall have been executed in writing by the Council.

It is further stipulated that the Council of the California Medical Association does not assume any financial obligation to you, or any insurance company for expenses that may be incurred by you or by them.

3. *Termination of Broker Service:* The Council hereby reserves the right to cancel your appointment as Association Liability insurance broker, upon written notice, whenever the Council deems that such cancellation is in the best interests of this Association and its members. It is hereby stipulated that in the event of such cancellation neither the Council of the Association nor any of its members shall be financially obligated for any services that you or your firm may have rendered.

Council of California Medical Association.
By T. Henshaw Kelly, *Chairman.*
F. C. Warnshuis, *Secretary.*

Accepted:

10. **Review Books.**—It was moved by President-elect Pallette, seconded by Councilor Kiger, that all books sent to the Association for review be retained in the offices of the Association and that the magazines received in exchange be sent to the San Francisco County Society Library and that the previous monthly payment of $15 in lieu of rent be discontinued. Carried.

11. **Medical Society of New Jersey.**—A letter from the Medical Society of New Jersey regarding a special meeting of the House of Delegates of the American Medical Association on medical economics was read and placed on file.

12. **Practice of Radiology.** — A resolution from the Pacific Roentgen Club, supporting the action of the California Medical Association that holds that all branches of radiology are the practice of medicine, was read.

The secretary read the following resolution, which was presented by the Section on Radiology of the California Medical Association:

Whereas, Certain organized lay groups in this country are endeavoring to arrange for the provision of diagnostic medical service along with and as part of hospital services; and

Whereas, The provision of such diagnostic medical services will inevitably foster fundamental changes in the practice of medicine; and

Whereas, Such changes in the practice of medicine may well result in deterioration of our present medical standards and especially in deterioration in the quality of medical care furnished to hospital patients; now, therefore, be it

Resolved, That it is the official policy of the House of Delegates of the American Medical Association that it disapproves of the division of any branch of medicine into technical and professional portions; and be it further

Resolved, That copies of this resolution shall be brought to the attention of the American Hospital Association and its affiliated groups, to the end that existing arrangements permitting division in medical practice be terminated as speedily as possible.

It was moved by Councilor Rogers, seconded by Councilor Ullmann, that the request of the Section on Radiology be complied with and that the delegates to the American Medical Association be requested to introduce this resolution at the 1936 Kansas City meeting of the House of Delegates. Carried.

13. **Association Correspondence.**—The secretary read a letter from Olin West stating that the California Medical Association letter of December 2, relating to negligence in replies to specific questions asked by this Association, had been received and would be referred to the Executive Committee and the Board of Trustees. The secretary reported that no further reply has been received to date.

14. **Lay Technicians.** — The proposed University of California Extension Course for training of lay technicians was discussed and, on motion of Editor Kress, seconded by Councilor Rogers, the matter was referred to the secretary for reference to the proper committee. Carried.

15. **Woman's Auxiliary.**—A letter from the chairman of the Committee on Associated Societies and Technical Groups asking, on behalf of the Woman's Auxiliary, for $150 for entertainment at the annual session, was read.

It was moved by Speaker Roblee, seconded by Chairman of Public Relations Committee Dukes, that $150 be given to the Woman's Auxiliary for entertainment at the annual session. Carried.

16. **Editor of the American Medical Association Journal.**—After consideration of clippings taken from the daily press and letter from a member of the Association, on motion of Councilor Kiger, duly seconded, the following resolution was adopted:

Whereas, The editor of the *Journal of the American Medical Association* is a paid employee of the Board of Trustees and the House of Delegates; and

Whereas, This employed editor has for some years been conducting a syndicated column in the local press of the country by writing articles on medicine, health and allied subjects over his name to which is appended the title of "Editor of the Journal of the American Medical Association and Hygeia," for which he receives financial returns to his own personal profit and gain; and

Whereas, The public gains the impression that in these articles the editor is the spokesman for the Association and its members and that the articles are endorsed by the Association; and

Whereas, Section XVI of the By-Laws provides that no memorial, resolution or opinion of any character whatever shall be issued in the name of the Association unless it has been approved by the House of Delegates; and

Whereas, Many of these syndicated articles of the employed editor of the Association have received adverse criticism and disapproval by lay and professional men because of their content, style and errors, thereby producing adverse reflection upon the Association; and

Whereas, The employed editor is not the spokesman of the Association or its members as he has at times stated and implied; now, therefore, be it

Resolved, That the Council and officers of the California Medical Association do hereby respectfully petition and request the Board of Trustees of the American Medical Association to take action to instruct the employed editor to immediately discontinue the use of the title "Editor of the Journal of the American Medical Association and Hygeia" after his name in his syndicated articles written for nonmedical publications; and be it

Resolved, That the Board of Trustees of the Association be requested to take the necessary action that will prevent its employed editor from capitalizing upon his position and using it for his personal financial profit; and be it

Resolved, That the Board of Trustees require its employed editor to devote his entire time to the editorial duties of that office; and be it

Resolved, That the secretary of the California Medical Association be hereby instructed to send a copy of this resolution to the chairman and the secretary and members of the Board of Trustees, secretaries and editors of the State Associations and to all the members of the House of Delegates of the American Medical Association.

17. **Health Insurance.**—A detailed tabulated report on the poll taken of all of the licensed physicians and surgeons in California upon changes in laws governing medical practice in California was submitted, and on motion duly made, seconded and carried, the report was accepted, the committee thanked for its services, and the poll declared closed.

18. **Association Headquarters.** — The secretary presented correspondence regarding the acquisition of a permanent Association headquarters.

It was moved by Peers, seconded by Roblee, that a committee be appointed to study this matter from all angles and be authorized to take an option upon the property without any down payment, and report back to the Council. Carried. (The committee appointed consisted of Doctors Kelly, Pallette, Gibbons, Roblee, and Warnshuis.)

19. **Recess.**—At this point a recess was declared for luncheon.

20. **Call to Order.**—The Council was called to order by Chairman Kelly after the recess.

21. **Committee of Five.** — Correspondence was read from Dr. W. R. Molony, chairman of the Committee of Five, stating that Professor Dodd had advised him that all materials relating to the California Medical Association's part of the survey were being forwarded to the Association offices and that final revision of the report was now being made, which would complete his responsibility to the Committee of Five.

Discussion was then had of the matter of final revision and evaluation of the report. Doctor Yoell was granted the privilege of the floor, and stressed the desirability of securing the services of Professor Canning for a final revision of the report. Further discussion followed.

It was moved by Councilor Howson, seconded by Councilor Ullmann, that the matter be laid on the table for two hours. Carried.

22. **Secretary's Annual Report.**—The secretary presented his annual report to the Council as mailed to all members thereof.

It was moved by Councilor Ullmann, seconded by Councilor Kiger, that the report of the secretary be accepted for submission to the House of Delegates. Carried.

23. **Auditing Committee Report.** — The question of transportation expense was raised, and it was the sense of the Council that the present allocation of railroad fare and lower berth be abided by.

Excerpts from the audit of the Association's accounts as prepared by Ernst & Ernst, certified public accountants, were read. The allocation to the Journal of $3 dues of the members in place of the former allocation of $2 was discussed in detail. It was pointed out that this accounted for a relative amount of loss in "Association" accounts and gain in "Journal" accounts over the previous years.

It was moved by Councilor Gibbons, seconded by Editor Kress, that the accountants be requested to change the Association books to the type used by a nonprofit organization. Carried.

It was moved by Councilor Gibbons, seconded by Speaker Roblee, that the expense incurred by the president and the president-elect in visiting county societies be approved for payment by the Association. Carried.

24. **Scientific Sections of the Association.**—The secretary recommended, upon suggestion of the Scientific Committee and Section officers, that a study be made of the Scientific Sections of the Association with a view of reorganizing the same.

It was moved by President-elect Pallette, seconded by Phillips, that a committee survey this matter and report to the Council, who will in turn make recommendations for submission to the House of Delegates. Carried. (The committee appointed consisted of Morton R. Gibbons, L. A. Goin, L. P. Adams, John Ruddock, and Fred Gundrum.)

25. **Funds of the Association.**—It was moved by Councilor Kiger, seconded by Councilor Emmons, that the Association and revolving funds of the Association be deposited in the Crocker First National Bank.

26. **Budget.**—The chairman of the Auditing Committee submitted the budget of the Association for the year 1936-1937.

It was the sense of the Council that the expense of the various departments be broken down and shown each under one subheading in the budget.

It was moved by Councilor Gibbons, seconded by President-elect Pallette, that the budget as submitted with the emendations suggested be approved by the Council for submission to the House of Delegates. Carried.

27. **Qualifying Certificate Act.** — George H. Kress, chairman of the Special Committee on the Qualifying Certificate Act, submitted the minutes of the meeting of his committee, which was held on December 14, 1935.

It was moved by Editor Kress, seconded by Councilor Gibbons, that the proposed enactment of a qualifying certificate act by initiative petition be postponed until the November, 1938, election. Carried.

On motion of Pallette, seconded by Ullmann, the following resolution was submitted to the Council for action:

WHEREAS, The referendum vote of the California Medical Association members on a proposed Qualifying Certificate (Basic Science) law showed that about 90 per cent of the physicians who cast ballots were in favor of such initiative law; and

WHEREAS, Because of the new registration laws, an initiative cannot be submitted to the electorate until November, 1938; now, therefore, be it

Resolved, By the Council of the California Medical Association that the sum of $35,000 be set aside from the funds of the Association as a separate fund to be earmarked for use in the November, 1938, State election, at which time the proposed Qualifying Certificate Law will be placed on the ballot.

A vote on the question was called for, and there being a division of opinion Doctor Schoff called for a vote by roll call.

Noes: Doctors Peers, Roblee, Kelly, Schaupp, Emmons, Ullmann, Anderson, Phillips, Hamlin, Rogers, Tanner, Gibbons, and Harris.

Ayes: Doctors Pallette, Howson, Schoff, and Kiger.

There being thirteen noes and four ayes, the motion was declared defeated.

28. **Disciplinary Procedure.** — William Roblee, chairman of the Committee on Disciplinary Procedure, presented the report of his committee. The proposed by-laws embodying rules of ethics and procedure were then considered, section by section.

It was moved by Councilor Gibbons, seconded by Councilor Emmons, that any member of the Council who had further suggestions for the by-laws and rules for disciplinary procedure submit same to the committee within the shortest time possible, and that the committee submit a final report to the next Council meeting. Carried.

29. **Foreign Exchanges.**—On motion of Councilor Ullmann, seconded by Councilor Rogers, the Council directed that foreign exchanges be discontinued. Carried.

30. **Publication of Nevada Papers.**—The editor was authorized to use his discretion on publication of papers received from the Nevada Association, maintaining the same quality standard as is observed in acceptance of papers from California authors.

31. **Journal to American Medical Association Delegates.**—It was moved by President-elect Pallette, seconded by Councilor Kiger, that, for one year, CALIFORNIA AND WESTERN MEDICINE be sent to all members of the House of Delegates of the American Medical Association and to the American Medical Association trustees. Carried.

32. **Roster of Association.**—It was moved by Councilor Schaupp, seconded by Councilor Anderson, that a roster of members of the California Medical Association be published in the JOURNAL as heretofore. Carried.

33. **Special Societies.**—Discussion was had of the inclusion of special societies in the list of organizations published in the forepart of the JOURNAL.

On motion duly made, seconded and carried, it was ordered that organizations applying for such listing be advised that it is the policy of the Association not to publish lists of any special organizations.

34. **Complimentary Journals.**—It was moved by Editor Kress, seconded by Councilor Kiger, that Lionel Browne, attorney for the State Board of Health and the Board of Medical Examiners, be placed on the complimentary mailing list of the JOURNAL. Carried.

35. **Annual Session.**—The secretary stated that, due to illness, Dr. Tate Mason may be unable to attend the annual session as an invited speaker.

Full discussion was had of entertainment at the annual session.

It was moved by Councilor Gibbons, seconded by Councilor Ullmann, that the matter of expenditure for entertainment at the annual session at Coronado be left in the hands of the secretary and the local Committee on Arrangements. Carried.

36. **Public Relations Department.**—The secretary reported for the committee chairman that the Committee on Public Relations and representatives of the various hospitals in California had met and discussed hospital service under Assembly Bill 246 and that the hospital representatives and the radiologists are to form a committee to meet with the Public Relations Committee for the purpose of formulating a state policy regarding hospital and laboratory services in connection with hospital insurance.

37. **Committee of Five.**—It was moved by Councilor Ullmann, and seconded by Councilor Gibbons, that the matter of securing the services of Professor Canning to assist in the final revision of the survey report be removed from the table.

Doctor Schoff stated that he wished to go on record as suggesting to the Committee of Five that Doctor Canning be employed, but that the matter be referred back to the Committee of Five for any action.

It was moved by President-elect Pallette, seconded by Councilor Emmons, that the matter of securing the services of Professor Canning be returned to the table. Doctors Schaupp and Gibbons voted in the negative. There being a division of opinion the chair called for a vote by roll call.

Ayes: Doctors Pallette, Roblee, Emmons, Howson, Ullmann, Anderson, Phillips, Hamlin, Kiger; Harris (with right to explain his vote).

Noes: Doctors Kelly, Schaupp; Schoff, qualified with "No" on tabling because he wants to have the matter go back to the Committee of Five; Rogers, Gibbons.

Ten votes to table being cast in the affirmative and five in the negative, the matter of securing the services of Doctor Canning was returned to the table.

Doctor Harris then explained his affirmative vote, stating that he did not wish to bury the report, but that he thought this was the wrong time to employ Professor Canning and that he believed this matter should go back to the Committee of Five and that a stimulating committee should be appointed to act with the Committee of Five.

It was moved by Councilor Harris, seconded by President-elect Pallette, that a committee of three, consisting of Doctors Kelly, Pallette, and Roblee, be appointed to act with the Committee of Five, to the end that this survey report be placed in its final form at the earliest possible moment. Carried.

38. **Legal Department.**—The general counsel reported on the present status of the case of *Pacific Employers* vs. *Insurance Commissioner,* and *Francis* vs. *Nelson.*

The general counsel stated that he had received a letter from the American Medical Association wherein Doctor Woodward did not agree with the contentions made by the California Medical Association regarding exemption of physicians from income tax.

39. **Farm Bureaus.**—Doctor Rogers outlined activities of the various Farm Bureaus and stated that speakers had been furnished for lay meetings on several occasions and that through the coöperation of the secretary additional speakers would be furnished in the future.

40. **Tax-Supported Hospitals.** — Dr. Anderson, chairman of the Committee on Tax-Supported Hospitals and Medical Services, stated that the committee was gathering information and that questionnaires had been received and were now ready for tabulation and that a further progress report would be submitted.

41. **Cancer Commission Report.**—Dr. Ullmann stated that many requests had been received for copies of the report of the Cancer Commission and that the Commission desired to have additional reprints made for resale at 75 cents per copy.

It was moved by Councilor Ullmann, seconded by Councilor Harris, that the secretary of the Association be authorized to secure reprints of the report of the Cancer Commission on the basis of the bid submitted by Stacey, subject to the approval of the Auditing Committee of such expenditure of funds. Carried.

42. **Adjournment.**—There being no further business, the meeting adjourned.

T. Henshaw Kelly, *Chairman.*
F. C. Warnshuis, *Secretary.*

COMPONENT COUNTY MEDICAL SOCIETIES

FRESNO COUNTY

The months of December and January have been busy days for the officers and members of the Society. Under the leadership of our new president, Dr. Kenneth Staniford, several new projects have been launched by the Society. The Woman's Auxiliary has been definitely organized and is now under way as an important aid to the Society.

On December 12, 1935, the Board of Directors met in special session with representatives of the American Red Cross. After listening to arguments from the Red Cross, the Board finally approved the organization of a well-baby conference, to be conducted in a section of Fresno where infant mortality is high and medical service inadequate. The Red Cross pledged a rigid social servicing of all applicants to the conference.

The regular meeting of the Society took place on January 7 at the University-Sequoia Club. Dinner preceded the meeting, which was well attended. Following the showing of some interesting African films by Mr. John Cooper, the scientific program was presented by Dr. Alson Kilgore of San Francisco. His subject was the *False Acute Abdomen.* Doctor Kilgore discussed in detail the differential diagnosis of the acute surgical and nonsurgical abdomen. His paper was intensely interesting and enjoyed by all those present.

On January 16 the Board of Directors again held a special meeting with the Committee on Hospitals and the Committee on Public Policy and Legislation. The purpose of this meeting, in the main, was to discuss the hospital insurance plan, which has again come to life by virtue of recent legislation in favor of this means to reduce the costs of medical care. The committees were instructed by the Board to review in detail the plan already approved by the Society some time ago, and if deemed feasible to report back with their recommendations to the next board meeting. It is then planned to present the proposed project to the Society, which, if approved, will be put in working form and offered to the public.

The Board of Directors, at this meeting, also went on record as endorsing the efforts of the local committee for the President's birthday ball in combating poliomyelitis, and instructed the secretary to give a radio address on January 18 relative to the Society's approval of the antipoliomyelitis campaign.

Henry A. Randel, *Secretary.*

HUMBOLDT COUNTY

The Humboldt County Medical Society held their regular meeting on the evening of December 18, 1935, at the St. Joseph's Hospital, President Charles C. Falk, Jr., presiding.

The applications of Francis H. O'Neil, Joseph M. Brown and Thomas F. Thorp, having been reported upon favorably by the State Society, were received into the local society. A resolution was passed and forwarded to Governor Merriam, urging the Governor to reappoint Dr. Charles B. Pinkham as a member of the State Board of Medical Examiners.

Ten-minute talks were given by the following members of the American College of Surgeons: Lane Falk, G. F. Norman, B. M. Marshall, O. R. Myers, and Charles C. Falk, Jr.

Election of officers for 1936 was held, with the following results: Joseph S. Woolford, president; Allan R. Watson, vice-president; John A. Lane, treasurer; Lawrence A. Wing, secretary; Lane Falk, delegate; Wilson Stegeman, alternate.

* * *

The Humboldt County Medical Society held its regular monthly meeting on January 16 at the Eureka Inn. There were twenty members present, and two guests—Doctors Albert V. Pettit and George Ward of San Francisco. President J. S. Woolford presided, and Dr. Lane Falk was chairman of the day.

Due to the fact that reports of our monthly meetings did not get into the Journal more regularly, on motion we changed our regular meeting night from the third Thursday to the first Thursday, thereby giving time to get a report in the issue of the same month.

The Society was the guest of Dr. Lane Falk at a crab luncheon, followed at three o'clock by special pictures and discussion on the lower abdominal and pelvic cavities. In the evening at eight o'clock, Doctor Pettit, assisted by Doctor Ward, presented the main paper—*The Principles which Lie Behind Certain Operations of the Abdominal and Pelvic Cavities, as of the Suspension of the Uterus, Vaginal Suspension of the Stump, Trachelorrhaphy, Cystocele, Enterocele and Pelvic Inflammations.* Discussion of the above paper was given by Doctors O. R. Myers, Lane Falk, J. F. Walsh, and Charles Falk, Jr. The Society was very grateful to Doctors Pettit and Ward for putting on such a splendid program, especially due to the fact of facing such a storm, taking two days to reach Eureka.

The next meeting, in February, will be a joint meeting with the dentists. A speaker from the Public Health League will address us.

Lawrence A. Wing, *Secretary.*

SACRAMENTO COUNTY

The regular annual business meeting of the Sacramento Society for Medical Improvement was called to order by the president, Orrin S. Cook, on the evening of December 17, 1935, at the Elks Temple. Thirty-five members were present.

Election of officers for 1936 resulted as follows:

Board of Directors—Doctors Cook, MacDonald, Van-Den Berg, Ankele, Scatena, Wallerius, Hale, Dozier, and Pollock.

Delegates—Doctors Hale and Scatena were elected to serve as delegates for the years 1936 and 1937.

Alternates—Doctors Cook and Christmas were elected to serve as alternates for the years 1936 and 1937.

Dr. Norris R. Jones was elected secretary-treasurer.

Moved and seconded that Dr. W. K. Lindsay be made an honorary member of this society, subject to action by the California Medical Association. Passed.

Frank Warne Lee, *Secretary.*

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SAN BERNARDINO COUNTY

The meeting of the San Bernardino County Medical Society was held at the San Bernardino County Charity Hospital on Tuesday, January 7, at 8 p. m. The meeting was called to order by the president. About seventy-five members and guests were present.

The president called attention to the special meeting with the Riverside County Medical Society on January 13 for the purpose of meeting with the State Association officers.

The following names were voted on and approved for membership: Drs. Clarence W. Dail, Aumond D. Meyers, and Edwin H. Shryock. Loma Linda; Marcus D. White, Ontario.

Mr. H. P. Thoreson, County Director of SERA, spoke briefly on the shortage of funds, beyond their control, and asked the panel physicians to coöperate in every way to help control expense.

The secretary announced the unfortunate and untimely death of Dr. John A. Graham of Barstow. The following resolution was approved:

> Whereas, It has pleased the Almighty God to take from our midst our beloved and highly respected colleague, Dr. John A. Graham; and
>
> Whereas, This Society feels most deeply the loss of one of its outstanding members; now, therefore, be it
>
> *Resolved,* That the San Bernardino County Medical Society extend to the bereaved family this expression of its deep sorrow and most sincere and heartfelt sympathy, and that this resolution be spread upon the minutes of the Society.

The program of the evening was then given as follows: *Cancer of the Breast,* a symposium by the American Society for the Control of Cancer, Dr. John H. Flude, western field representative. Discussion by Drs. C. G. Hilliard, J. A. Patterson, C. C. Owen, P. M. Savage, Sr., C. L. Emmons, and John C. Staub, Jr.

A. E. Varden, *Secretary.*

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SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held on January 9.

The meeting was preceded by the customary supper meeting at the Hotel Wolf, called to order at 6:15 p. m., at which there were twenty-two in attendance. Dr. Sam Hanson presented a very interesting paper on *The Occurrence and Management of Persistent Occiput Posterior.*

The regular meeting was called to order at 8:15 p. m. by the retiring president, C. A. Broaddus.

The petition for membership of Dr. John Rosasco being favorably acted upon by the Admissions Committee, and there being no objections on the floor, he was elected to membership. The petitions for membership of Doctors Green, Hooker, Peterson, DenDulk, and Baron were read and referred to the Admissions Committee.

Dr. A. L. Van Meter reported on the status of the postgraduate study course, stating that the balance on hand in the treasury at the termination of the course could be used in 1936 possibly to bring some man from the East to present a series of talks. Dr. R. T. McGurk moved that the Society go on record thanking the membership of the Postgraduate Study Committee for their efforts in presenting the postgraduate course. This was seconded by Doctor English, and the motion carried. Doctor Fitzgerald moved that the secretary write a note of appreciation to all of the men who presented papers to the postgraduate study course. Carried. The certificates of completion of the postgraduate study course were then presented by President C. A. Broaddus.

The papers of the evening were presented by Dr. E. Butler, who spoke on *Aid to Diagnosis in Wounds in the Abdomen* and *Recent Advances in the Treatment of Poisons.* Both papers were very enthusiastically received and presented a wealth of information on the handling of emergency cases. The discussion was participated in by Doctors Chapman, McGurk, Powers, Griner, McNiel, H. Smythe, and Van Meter.

There being no further business to come before the Society the meeting was declared adjourned at 9:30 p. m. and refreshments were served.

G. H. Rohrbacher, *Secretary.*

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SAN LUIS OBISPO COUNTY

At the annual meeting on December 28, 1935, the San Luis Obispo County Medical Society elected the following officers: L. T. Wade of San Luis Obispo, president; Charles Kennedy of Paso Robles, vice-president; F. W. Yocom of San Luis Obispo, secretary-treasurer; C. J. Teass of San Luis Obispo, delegate; D. A. Crew, alternate.

Board of Directors—F. C. Mugler, Ira Bartle, of San Luis Obispo, and A. H. Wilmar of Paso Robles.

The dues for the ensuing year were set at $15.

The above election followed the annual dinner at the Paso Robles Hotel. During the business meeting the Woman's Auxiliary to the San Luis Obispo County Medical Society held its annual meeting.

The following telegram was sent to Governor Merriam on January 3:

"The San Luis Obispo County Medical Society unanimously requests that you reappoint Dr. Charles B. Pinkham as a member of the State Board of Medical Examiners."

Frank W. Yocom, *Secretary.*

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SANTA BARBARA COUNTY

The annual banquet meeting of the Santa Barbara County Medical Society was held at the Hotel Mar Monte, Monday evening, January 13, President E. K. Shelton presiding. There were present seventy members and thirteen guests.

During the interval preceding the banquet, cocktails were served, and the tellers distributed and collected the ballots for the annual election.

During the dinner course the assembly was most enjoyably entertained by Dr. Henry Profant and his group with instrumental music and songs.

At the conclusion of the dinner the president announced the election of the following officers for the ensuing year: P. A. Gray, president; Irving Will, vice-president; H. G. Hanze and C. G. Baird, vice-presidents-at-large; W. H. Eaton, secretary-treasurer. Delegates to the State Association convention (two-year term), Hugh Freidell and Rodney Atsatt. Alternates, Richard Evans and H. E. Henderson. Council, Hugh Freidell, H. E. Henderson, and O. C. Jones.

After brief remarks by retiring President Shelton and incoming President Gray, the speaker of the evening, Dr. A. Th. Polyzoides of the University of Southern California was introduced. Doctor Polyzoides' subject, *The Rising Importance of the Pacific Area,* was discussed most ably and interestingly, and brought forth many facts of extreme importance regarding our future relations with the Orient. The discussion was most timely and greatly enjoyed by all.

Guests of the Society, Doctor Grimm of the dental society and Mr. Ross of the Bar Association, were then called upon for brief remarks.

Upon balloting, Dr. J. Kenneth Patterson was unanimously elected into the Society.

Dr. Charles Baird, representing the Santa Maria branch of the county society, extended an invitation that the May meeting of the Society be held in Santa Maria. The invitation was unanimously accepted.

W. H. Eaton, *Secretary.*

SISKIYOU COUNTY

The regular meeting of the Siskiyou County Medical Society was held at the Yreka Inn at Yreka on December 15, 1935. The meeting was called to order by President J. R. U. Campbell.

A letter was read from the State Board of Medical Examiners stating that Doctor "Tinker," who has been practicing in the city of Mount Shasta without a license, had been warned to discontinue such practice under penalty of criminal prosecution.

A card was received stating that Doctor McCann, who was formerly at McCloud, had transferred to the Upper Mississippi Medical Society.

It was moved, seconded and passed, that a petition be sent from this society to Governor Merriam requesting that he reappoint Dr. Charles B. Pinkham as secretary of the State Board of Medical Examiners.

Moved, seconded and passed, that a letter of commendation be sent to Doctor Seeley (who has moved to Redding) for his untiring efforts as secretary-treasurer during the past year.

Election of officers was held and the following were elected to office: C. C. Dickinson of McCloud, president; Doctor McGuire of Mount Shasta, vice-president; E. F. Carlson of Fort Jones, secretary-treasurer.

A round-robbin discussion of interesting cases and their treatment was then carried out. The next meeting will be held at Mount Shasta City on January 26.

E. F. Carlson, *Secretary.*

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SOLANO COUNTY

A regular meeting of the Solano County Medical Society was held Tuesday evening, January 14, at eight o'clock at the Casa de Vallejo Hotel.

After dinner, routine business was transacted.

Dr. M. Elizabeth Jenkins was elected to membership in the Society.

Dr. A. V. Doran of Vallejo introduced the guest speaker of the evening, Dr. Hans Lisser, clinical professor of medicine at the University of California. The title of Doctor Lisser's talk was *Adrenal Cortical Syndromes, with Mention of Cushing's Disease, and Arrhenoblastoma.* The subject was very interesting and greatly enjoyed by all the doctors present.

In addition to members of the Solano County Medical Society, guests from Mare Island, Crockett, Benicia, Napa, and from the Napa State Hospital were present.

John W. Green, *Secretary.*

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SONOMA COUNTY

The Sonoma County Medical Society met on January 9 at the Occidental Hotel in Santa Rosa. Twenty-five members were present.

Dr. E. B. Shaw of San Francisco addressed the Society on *Communicable Diseases,* stressing recent ideas of prophylaxis. His paper was well received, and our members were impressed with the excellent presentation of a very interesting subject.

A short discussion concerning the care of the indigent sick was held during the evening.

Clifford M. Carlson, *Secretary.*

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STANISLAUS COUNTY

The regular monthly meeting of the Stanislaus County Medical Society was held at the Hotel Modesto on December 13, 1935, with thirty-two members present. A splendid dinner was served by the management of the hotel.

We had as our guests, Dr. Robert Peers, president of the State Medical Association; Dr. Frederick C. Warnshuis, secretary of the State Medical Association; and Dr. Axcel E. Anderson, district councilor.

Following the dinner a motion was made by Dr. Hans Hartman that, inasmuch as it was Doctor Peers' sixtieth birthday, the Society should extend to him some remembrance in honor of the occasion. Therefore, he moved that Doctor Peers be made an honorary member of the Stanislaus County Medical Society. The motion was seconded by Doctor Morris, and the secretary was instructed to cast a ballot for a unanimous election of Doctor Peers. Motion carried. The secretary announced Doctor Peers elected.

Application of Dr. Hoyt Gant for membership was presented. Moved by Doctor DeLappe, and seconded by Dr. Hans Hartman, that Doctor Gant be accepted to membership. Motion carried.

Doctor Maxwell gave a report regarding Mrs. King, public health nurse. . . .

There being no further business to come before the meeting, President Allen introduced Dr. Robert Peers. In opening his address, Doctor Peers said: "Fellow members of Stanislaus County—You have given me the most wonderful and acceptable birthday gift. I shall always remember and cherish your kindness and courtesy as well as the good fellowship that has already been expressed." Doctor Peers then spoke upon the work of the State Medical Association and dwelt upon the betterment of its present conditions. He reported thirty-nine societies representing 90 per cent of the eligible physicians and surgeons. These members elect the House of Delegates, which is the governing body; therefore, the House of Delegates represents 90 per cent of the physicians and surgeons of the State. He stressed the necessity of reading California and Western Medicine, with special emphasis on the editorials, for there are to be found problems of organized medicine. In closing, he stated that each and every member having any problems to consider should feel free to consult the councilor of his district, for in this way the district becames a constructive unit of a cohesive State Association.

Dr. Axcel Anderson, councilor of this district, was the next speaker. Doctor Anderson spoke at some length on the report of the State Committee on County Hospital Problems. He also called to our attention the present and ever-increasing problems of aid to superannuated physicians, saying that he believed this problem was becoming more and more a vital one, and asked that this society and all others give it earnest consideration.

Doctor Warnshuis was next introduced. He first paid tribute to Doctor DeLappe, retired councilor of this district, for his long sincere services to the medical profession of this State. Doctor Warnshuis spoke at length on the progress of medicine, stating that through postgraduate work only could the modern physician keep abreast of the times. Medical society meetings are of the most extreme importance, and the present proposed extension course should be of great value to all of the medical profession. He next touched upon liability malpractice insurance. He stated that one of the companies would increase its rates 20 per cent on January 1, 1936, and that there has been a 300 per cent increase in the rates of this type of insurance in Los Angeles County. Also that the State of California is paying 50 per cent higher rates than our brethern on the eastern seaboard. There should be a report early in January by the State committee investigating this problem, with the idea in mind of supplying through the State Association, malpractice liability at cost to its members. Doctor Warnshuis advised all members to avail themselves of the present legal protection that the State Society now furnishes.

Doctor McPheeters expressed his appreciation of the above service and stated that this legal protection had saved him a great deal of worry and costs.

The Stanislaus County Medical Society, through its president, expressed to all the speakers its appreciation of their time and individual effort that they had so gladly and gratuitously given.

E. F. Hagedorn, *Secretary.*

TULARE COUNTY
KINGS COUNTY
(Joint Meeting)

The final 1935 meeting of the Tulare County Medical Society was held at Motley's Café, Visalia, at 6:30 p.m. on December 22, 1935. Dinner preceded the meeting.

The Kings County Medical Society met with us by invitation to hear the reports of the State Society officers, who were our guests on this evening. President Ray Rosson presided. President Chamlee of the Kings County Medical Society responded for the visitors. The meeting was then turned over to the State officers, who were the guests of honor.

Robert Peers, president of the State Medical Association, reported on his plans of visiting every county society in the State and discussed the workings of the State Association.

District Councilor A. E. Anderson of Fresno outlined the county hospital survey program and submitted a preliminary report of the work done.

Dr. F. S. Warnshuis, state secretary, spoke of the State Association's activities in regard to: (*a*) Postgraduate conferences. (*b*) Program of educating the public on medical problems through corps of speakers for various public groups. (*c*) Recent developments on hospital insurance, and increased premiums for malpractice insurance; and urged us all to read the official publication of the California Medical Association, to keep abreast of problems of organized medicine in California.

Dr. LeRoy Briggs, professor of clinical medicine at the University of California Hospital, delivered the scientific paper of the evening. The *Clinical Significance of Jaundice as a Symptom* formed the subject of his paper, which was most ably presented. A rising vote of appreciation was extended Doctor Briggs for his talk and willingness to answer the many questions at its conclusion.

At the close of the clinical program a regular business session took place. Various communications were read. A motion was made by Doctor Lipson to urge the reappointment of Dr. Charles B. Pinkham to the State Board of Medical Examiners, and instructions given to forward a copy of this resolution to Governor Merriam. The motion was seconded and carried.

A motion by Doctor Ginsburg was carried to reinstatc Doctor Zeller.

Nomination and election of officers for 1936 was next in order, and resulted as follows: J. C. McClure of Lindsay, president; John Fillmore of Strathmore, vice-president; K. F. Weiss of Visalia, secretary-treasurer. Censors, Doctors Tourtillott (1937), Ginsburg (1938), Ray Rosson (1939). Delegate, Ray Rosson of Tulare. Alternate, K. F. Weiss of Visalia.

Dues for the year 1936 were voted to be left as formerly—$10, California Medical Association; and $10, county society.

An unusually large attendance marked this meeting. Members and guests present included Doctors Gronemiller, Murphy, Bridgman, Chamlee, Fillmore, Tourtillott, Nicholson, A. Miller, Preston, Newbecker, P. Miller, Hellbaum, Brigham, Watke, Matthias, Crawshaw, Charles Rosson, Winns, Falk, Neal, Lipson, A. E. Anderson, Robert Peers, Ray Rosson, F. C. Warnshuis, Weiss, LeRoy Briggs, Ginsburg, E. C. Bond, Guido, McClure, Betts, and Parkinson.

Doctor Rosson then closed his 1935 term of office by thanking the members for their support during the year.

Karl F. Weiss, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (17)

Alameda County.—Emery R. Ranker, Thomas Hubert Reiss.

Napa County.—Frank X. McGreane.

San Bernardino County.—Justin W. Neighbor, Marvin K. Paup.

San Diego County.—J. Aston Jetton, James R. Matson, Horace G. Merrill, Rufus A. Schneiders, John W. Warren.

San Joaquin County.—J. L. Rosasco.

San Luis Obispo County.—Justin A. Frank.

Santa Clara County.—Thomas H. Boone, Howard George Diesner.

Solano County.—Herman B. Perkins.

Stanislaus County.—Hoyt R. Gant.

Tulare County.—Harry Falk.

Transferred (3)

Peter Paul Baron, from Siskiyou County to Alameda County.

Orta Edward Kuhn, from Napa County to San Joaquin County.

Leslie D. Trott, from Los Angeles County to Orange County.

Resigned (4)

J. W. Calkins, from Alameda County.
Edmond W. Parsons, from San Francisco County.
H. Schwartzman, from Alameda County.
Reuben S. Zumwalt, from San Francisco County.

In Memoriam

Dubois, Charles Warren. Died at Los Angeles, December 17, 1935, age 33. Graduate of Cornell University Medical College, Ithaca, New York, 1927. Licensed in California in 1930. Doctor DuBois was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✠

Graham, John Alexander. Died at Los Angeles, January 2, 1936, age 59. Graduate of the Chicago College of Medicine and Surgery, 1915. Licensed in California in 1923. Doctor Graham was a member of the San Bernardino County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✠

Rathbun, William T. Died at Colusa, December 28, 1935, age 66. Graduate of the University of California Medical School, San Francisco, 1892. Licensed in California in 1893. Doctor Rathbun was a member of the Yolo-Colusa-Glenn County Medical Society, the California Medical Association, and the American Medical Association.

✠

Wheeler, Ira Abbey. Died at St. Helena, January 2, 1936, age 75. Graduate of the California Eclectic Medical College in 1894, and licensed in California the same year. Doctor Wheeler was a member of the Sonoma County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS[†]

Wishful Thinking

In seeking solution for confronting problems in government, legislation business and social activities, satisfactory plans for reform are delayed because of a very wide tendency toward wishful thinking on the part of all peoples. There is much talk and harangue, but very little thinking. And among those who have attempted to think the nature of thought follows wishful lines. A wish is expressed and advanced as a solution, but right there the effort ends. Wishes will never bring about solution. Effort must be recorded.

[†] The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

Basic interests are common and action must be revealed ere the eleventh hour has struck. Petty differences must be put aside. United organized effort must be made to gather up the dragging reins of government business and social security and to take our place in the driver's seat.

Protests against "crackpot" social and economic legislation: denunciation of irresponsible legislators and unscrupulous public officials and politicians is useless unless it results in united action, and action will not be enlisted till the wishful thinker becomes a positive thinker. Impelled by a positive purpose, united, then by action society can rid itself of evil things, business can go on its way to prosperous days, and government will be directed and administered by citizens that are capable, competent, efficient and honest.

Local, state, and national elections are near at hand. Candidates for many elective offices are being groomed and assuming positions in the election race. Politicians are building their fences and planning for the spoils. Mr. Voter is only wishfully thinking when positive action is needed.

Our 5,400 members can exert a wholesome influence upon more than three-quarters of a million voters and cause them to become positive thinkers united to become positive workers for reform in all avenues of life. More will be said about this later.

Just now the urge is that you assume a positive rôle prepared to enlist for united action. Decline to pledge support for any candidate until you have been reliably informed as to his capability, integrity, and stand upon the questions of the day. At an early date you will be enlightened as to certain positive movements that will bring relief from present intolerable conditions and your active support will be solicited.

* * *

Expert Testimony

One does not have to go far to secure evidence that under legal procedure personal injury cases are not settled by a dispassionate jury inquiring into facts. It is evident that these cases are "built up" to maximum effectiveness. We are all more or less informed as to how expert testimony is introduced and how it is given consideration by a jury. It can be stated, as did a lawyer addressing the law class in Harvard, that "the present mode of procedure, in so far as medical testimony is concerned, is not a particularly edifying one." In place of reforms in court procedure in personal injury cases the situation is becoming more and more intolerable.

Now come F. E. Elliott and Ramsay Spillman, who advance a method and plan to correct this miscarriage of equity and justice. In the October, 1935, issue of the law journal—*Law and Contemporary Problems*—they cite many abuses and review the whole subject. They conclude with these recommendations!

1. Case to be heard by a tribunal of three—one judge, a medical man, one layman.
2. Eliminate present contingent fees of the attorney. Let the court determine the value of an attorney's services.
3. Impose a penalty upon an attorney who brings an action for which there are no reasonable grounds.
4. Develop standards for use in determining degree and consequences of personal injury.
5. Limit medical testimony to fundamental facts.
6. Experts are to be employed by the court and become servants of the court in expressing opinions.
7. Experts can only be questioned by the court.

As they are discussed these proposals create a strong appeal and a desire to bring about their initiation in a problem that calls for reform. To that end members are invited to send in their comments. If sufficient interest is manifested the Committee on Public Relations will then undertake to see how this reform may be accomplished in the courts of California. Please send us your reactions and comments.

* * *

Important "Dont's"

If members will learn to observe the following advice they will save themselves from much trouble:

1. Don't assign accounts to a collection agency until you ascertain the standing and reputation of the agency. This department will be glad to inform you.
2. Don't fall for "directories" that promise you business if you will pay a certain sum for listing your name.
3. Don't take out an insurance policy because you are given a promise of appointment as a medical examiner or member of their panel of physicians.
4. Don't operate on a minor without written consent of the parent or guardian.
5. Don't perform a sterilization operation on a minor without a *court order*. On those who have attained their majority, secure written consent.
6. Don't operate on anyone without a clear and full understanding as to the nature of the operation. See *The Journal of the American Medical Association*, p. 33, January 4, 1936, issue for forms for consent for operations, examinations, and autopsy.
7. Don't sue for an account till the period of limitations has expired.
8. Don't report on services rendered to life insurance companies without patient's consent. Obtain fee for these reports from the company.
9. Don't make affidavits until you know their purpose.
10. Don't fail to obtain consultation or advice when you are in doubt.
11. Don't employ lay technical x-ray and laboratory persons. Use licensed physician's laboratories.
12. Don't violate patients' confidential physician-patient relationship.
13. Don't fail to keep complete accurate records.
14. Don't be an easy mark in falling for agents' representations.
15. Don't sign till you know what you are signing.
16. Don't fail to consult your investment banker before investing in any business or promotion scheme.
17. Don't prescribe narcotics for transient persons.
18. Don't sign a death certificate if you have not seen the patient within thirty-six hours before death. Call the coroner.
19. Don't neglect carrying indemnity defense insurance.
20. Don't break the Golden Rule.

* * *

Conference with Chiefs of Medical Staffs of Hospitals

On January 18 the Committee on Public Relations held a conference with representatives of hospital medical staffs. The purpose of the conference was to accomplish the formulation and acceptance of a state-wide policy in regard to what shall be incorporated in "hospital service" in any plan of hospital insurance authorized under Assembly Bill 246, passed by the last legislature.

Some fifty representatives attended. Profitable discussions and suggestions ensued in the two-hour session. The conference concluded with the appointment of three representatives of the hospitals and of the laboratory directors who will meet at an early date with the Committee on Public Relations for the purpose of drafting a state-wide policy. When this is accomplished, due announcement will be made.

* * *

Minutes of the Meeting of the Committee on Public Relations, January 18, 1936: Conference with Hospital Representatives

Representatives of the Class A hospitals throughout the State of California met with the members of the Committee on Public Relations on January 18, 1936, at the Sir Francis Drake Hotel, San Francisco.

The meeting was called to order by Chairman Dukes at 4:15 p. m.

Doctor Dukes greeted the visiting staff members.

Doctor Warnshuis gave an outline of the features of an insurance plan which would meet with the approval of the Department of Public Relations of the California Medical Association. These features are as follows:

1. The patient should have free choice of hospitals.
2. The patient should have free choice of doctors, but he must be a reputable approved physician.
3. Services given the patient should consist only of the ordinary hospital care—not to include services of laboratory technicians, as it has been held that services of pathology and x-ray laboratories should not be a part of the hospital service.

Doctor Warnshuis asked that the various hospitals submit their plans for hospital insurance to their own county society and they in turn will submit the same to the Committee on Public Relations, which will be glad to render any advice or counsel desired.

Doctor Dukes called on Dr. Harold Brunn to outline his views for hospital insurance. Doctor Brunn stated that the hospitals are grouping together to formulate a plan, and all of the hospitals in San Francisco have joined the group, with the exception of the University of California (due to State affiliation) and Mary's Help Hospital, which will probably join at a later date.

The plan set forth by Doctor Brunn was as follows:

The patient is entitled to have any doctor he wishes. The doctor will render a bill to the hospital for laboratory services. The patient will be entitled to any service which the hospital now gives, including services of the x-ray laboratory.

It is Doctor Brunn's contention that the radiologist and roentgenologist would have a better chance of changing the present order of their standing under the hospital insurance plan than they have at present.

Dr. Loren Chandler of San Francisco said the hospital group spoken of by Doctor Brunn is composed of three representatives from each hospital, having an executive committee of six. An agreement of policy between the nonprofit organization and the patient and between each hospital and nonprofit organization has been drawn up. When the final copy has been compiled, it will be submitted to a group having a radiologist representation. This policy will be offered to employed groups only at probably 80 cents per month to each individual. This policy will not include the dependents of the employed group. Hospital services will be given for a limit of twenty-one days in any year. Services to consist of bed, board, general nursing care, ordinary drugs, etc., and the services of a physician who is a member of the hospital staff. The patient will be entitled to select any hospital in the group and must be admitted by his own physician. The facilities of the operating room will be given the attending physician and the facilities of the x-ray room and laboratories to be used by any radiologist that is acceptable to the hospital. This policy will be submitted to the various members of the groups and in its final form to the Council of the California Medical Association.

Dr. E. J. Best, representing the Franklin Hospital, stated that the Franklin Hospital has not yet agreed to join the hospital organization, as the constitution by which the hospital is now operated will not allow such action, but the staff members are entirely in accord with the movement. He stated that the hospital would perhaps join at a later date.

The Sutter Hospital of Sacramento was asked to send a representative to the meeting, but were unable to do so. Doctor Warnshuis read a letter from Doctor Scatena, chief of staff of the Sutter Hospital.

Dr. Haight Mitchell of Alameda said he thought a hospital service plan should be worked out which did not include radiologists, pathologists, roentgenologists, etc., and, although a plan could not be worked out which would be workable in every city, the policies issued should be as uniform as possible.

Dr. Clain Gelston of the Children's Hospital set forth a plan by which the hospital will not give medical services, but will offer to the physician the use of the hospital equipment. The patient to be brought in by his own physician. The x-ray department, including the technicians, will be at the disposal of the physician.

Doctor Cook of Los Angeles spoke of a plan which has been in operation in Los Angeles and which has worked out most satisfactorily. He will send a written copy of the plan.

Dr. Raymond Swinney of Long Beach urged that a working plan for hospital insurance be inaugurated as soon as possible or the medical profession will be forced to accept a plan not satisfactory to them.

Dr. Lowell S. Goin of Los Angeles spoke of the position of the roentgenologist in medicine of today and asked that these men be given consideration in the forming of the hospital insurance plan. He urged that in the forming of the plan the hospitals should not be given the right to practice radiology.

Dr. Alexander Keenan of San Francisco: The hospitals are not practicing medicine; the facilities are there for the use of the physician. The physician should send his own bill to the hospital. The hospital will be paid $6 a day from the central fund. When any special work is done by the technician, the technician will be paid for his services. The x-ray man is now paid by the hospital, but if this arrangement is not satisfactory he can send his bill direct.

William Holley of Los Angeles is entirely in agreement with the hospital insurance plan and believes such a plan should be made to meet the requirements of the middle class of people. Doctor Holley also spoke of the necessity of the medical profession's grouping together.

Dr. T. Henshaw Kelly does not believe the hospital should give any service other than that of bed, board, and general nursing care. The doctors and hospitals should coöperate with each other to make a hospital insurance plan workable. The pathologists and roentgenologists are medical doctors and should be treated as such; they should not be a separate part of the medical profession.

Doctor Dukes stated that, from hearing the various discussions, a working plan could be formulated and asked that the various groups send in their reactions to the questions brought up in this meeting.

Dr. Rodney Yoell spoke of the obligation of a physician to his patient and the responsibility of the doctor for this patient. He said the technical men should work out their own problem in regard to who should and should not practice pathology, roentgenology, etc., and how the bills of these men should be rendered—to the physician in charge or to the patient direct.

Doctor Stone: The radiologists are not trying to change the present plan of practice of medicine, but are working toward the recognition of the profession that x-ray work is specialty work.

Dr. Morton Gibbons: It is suggested that a meeting of the Public Relations Committee with three representatives of hospital and roentgenologists be arranged. This was concurred in, and Doctor Warnshuis will notify the members when the meeting is to be held.

After the adjournment of the meeting of the staff members and the Public Relations Committee, the regular meeting of the Public Relations Committee was called to order by Chairman Dukes.

Doctor Warnshuis outlined a plan whereby the material of the Public Health Institutes will be sent to the San Diego Fair. The California Medical Association has been granted 22,000 feet of space for these exhibits. In addition, the American Medical Association will also have space for exhibits at the fair. If the public health exhibits are sent to the Fair, the Public Health Institutes to be held in various parts of the State will be suspended until after the month of September, 1936. It was moved by Doctor Peers, seconded by Doctor Gibbons, that the exhibits be sent to the San Diego Fair. Carried.

The Federation of Women's Clubs are desirous of putting on an educational program throughout the State on the mental hygiene problem of the child and the adult. They have requested that the Department of Public Relations of the California Medical Association coöperate with them in this work.

It was moved by Doctor Gibbons and seconded by Doctor Dukes that the Department of Public Relations coöperate with the Federation of Women's Clubs in this work. Carried.

Doctor Warnshuis suggested that at the next annual meeting of the California Medical Association to be held in Coronado in May that the Association sponsor an evening public meeting in San Diego.

It was moved by Doctor Gibbons and seconded by Doctor Askey that this meeting be arranged. Carried.

Doctor Warnshuis displayed the placard which has been prepared to hang in the reception room of doctors' offices, entitled "The Physician and His Patient." It was suggested that these placards be sent with certificates to all doctors. It was moved by Doctor Gibbons and seconded by Doctor Peers that these placards be sent to the members. Carried.

The activities of the Public Relations Department were outlined by Doctor Warnshuis. These activities include the sending of press releases to some 250 newspapers every week. Several doctors have been asked to send in articles suitable for press releases. Doctor Warnshuis requested Doctor Askey to secure from Mr. Cochems some of his radio talks to be used as a press release.

Steps should be taken to contact the San Francisco Fair Administration members so that the California Medical Association may acquire directorships of the San Francisco Fair of 1938.

It was moved by Doctor Gibbons and seconded by Doctor Askey that steps be taken by the director to contact the San Francisco Fair Committee. Carried.

It was moved by Doctor Peers and seconded by Doctor Graves that the cost of printed placards for insertion with the monthly statements of public utility companies, etc., be ascertained. Carried.

Upon motion of Doctor Gibbons, seconded by Doctor Askey, Doctor Warnshuis was instructed to make arrangements for a future meeting of the chiefs of staff of the various hospitals throughout the State with the members of the Public Relations Committee. Doctor Warnshuis is to arrange the meeting and the time thereof.

Adjourned 6:45 p. m.

C. A. Dukes, *Chairman*,
F. C. Warnshuis, *Secretary*.

THE WOMEN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. THOMAS J. CLARK..President
MRS. ELMER BELT......Editor and Chairman of Publicity

State Auxiliary News

State Board Meeting.—A meeting of the officers and members of the board of the Woman's Auxiliary to the California Medical Association has been called by the president, Mrs. Thomas J. Clark of Oakland, for Monday, February 10, to be held in Los Angeles. All members of the state board are urged to attend, and all county presidents are most cordially invited to the session. The report of the convention chairman, Mrs. Elliott G. Colby of San Diego, of the preparations and plans for the annual state meeting to be held in Coronado the latter part of May will be of great interest to all Auxiliary members. The capable manner in which Mrs. Colby has handled the preconvention arrangements promises an excellent session. The details of the place and hour of the board meeting will be mailed by the state secretary, Mrs. C. Kelly Canelo of San Jose.

* * *

Fresno County to Have Auxiliary.—The Fresno County Medical Society held its annual meeting on December 3 at the University Sequoia Club, and invited as its guests the members' wives. Mrs. William H. Sargent of Oakland, State Chairman of Membership and Organization, was a guest of honor for the occasion, and in an after-dinner talk told of the need and the value of the medical auxiliaries organized throughout the State and the nation. Mrs. Sargent speaks well and to the point, and easily brought the already evident interest and enthusiasm of the Fresno women to decisive action. When the dinner program was over the women adjourned to a session of their own, and the initial plans of organization were formed. Officers of the new unit will soon be announced. The California Auxiliary gives warm welcome to this new county group, which becomes the seventeenth Auxiliary of the State.

Current Medical Topics Material.—In a recent "National News Letter," Mrs. Rogers N. Herbert of Nashville, Tennesse, National Auxiliary president, gives some of the sources from which materials and information on current medical questions can be obtained. These suggestions may prove helpful for study or programs in the county auxiliaries here. Mrs. Herbert says:

"Pamphlets and handbooks containing scientific information on nearly every subject which your Auxiliary might care to present may be secured at a nominal cost from Dr. W. W. Bauer, director of the Bureau of Public Instruction, American Medical Association, 535 North Dearborn Street, Chicago, Illinois. An especial need is felt at this time for pamphlets prepared by the American Medical Association on current subjects, such as 'New Forms of Medical Practice,' and the 'Handbook of Sickness Insurance, State Medicine, and the Cost of Medical Care.' These pamphlets may be obtained from the secretary of the California Medical Association.

"Special radio talks have been prepared by the American Medical Association for five, ten, and fifteen-minute broadcasts, and may be obtained for local use by writing the Bureau of Public Instruction. If planning local broadcasts, bear in mind the dates of the national American Medical Association radio programs to avoid conflicts. The American Medical Association began its radio broadcasts on October 1, to continue every Tuesday thereafter over the blue network of the National Broadcasting Company at 5 p. m., eastern standard time (2 p. m. Pacific time).

"The general theme, 'Medical Emergencies and How They Are Met,' will be presented in dramatized form with incidental music. Publicize these programs as widely as possible by announcing them in your various club activities and by telling the hour of the programs to all with whom you come in contact."

* * *

Suggestions from the National President.—In carrying on the work of the basic Auxiliary organizations, Mrs. Herbert, the National president, makes the following suggestions: "As we begin the records of the new year, let us continue to emphasize the importance of accuracy. It is vital to the National Auxiliary that each state and county organization keep their records accurate and up to date, with names and addresses in alphabetical order. The National treasurer and Chairman of Finance are working out plans to simplify the present system, and these plans cannot succeed unless based on accurate records of each individual Auxiliary.

"The National Auxiliary is dependent for its functioning power upon the coöperation of the state and county members, and their records may be compared with the wheels within a watch that, no matter how small, contribute to the perfect recording of time if perfect themselves, but throw the whole out of balance if imperfect.

"Records for permanent filing are sent to the historian by National, State, and County Auxiliaries, and from the historian they pass on to the Chairman of Archives.

"As we enter the new year, let us bear in mind the significant part that each Auxiliary member plays in forwarding our great health work, and let us remember that it is only through the closest coöperation and constancy to purpose that we can hope to achieve any measure of success."

* * *

County Auxiliary Reports

Kern County.—The Woman's Auxiliary to the Kern County Medical Society entertained their husbands at dinner on December 21 at the Stockdale Country Club. The tables were beautifully decorated with holly and red candles. This Christmas party is an annual occasion, and the attendance this year numbered over a hundred members and visitors. The guests of honor were: Dr. Robert Peers, president of the California Medical Association; Dr. Edward Pallette, the president-elect; Dr. C. G. Toland, the past president; Dr. Frederick C. Warnshuis, the secretary-treasurer; Dr. Henry J. Ullmann, a councilor of the third district from Santa Barbara; Dr. Charles Evans and Dr. and Mrs. Earl Moody, also of

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† As county auxiliaries to the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Elmer Belt, chairman of the Publicity and Publications Committee, 2200 Live Oak Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Belt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editor to allocate two pages in every issue for Woman's Auxiliary notes.

Santa Barbara; Dr. John V. Barrow of Los Angeles and Mrs. Barrow, president of the Los Angeles County Woman's Auxiliary; Dr. A. E. Anderson, Mr. Alfred Siemon, and Mr. and Mrs. Dale Parke of Los Angeles. Some very interesting and instructive talks were made by the distinguished guests, after which the evening was spent in dancing and games.

The committee in charge of the arrangements included: Mesdames Louis Packard, S. C. Compton, P. N. Root, F. J. Gundry, Jack M. Nicholson, and N. N. Brown.

The next meeting of the Auxiliary will be held in February, when the State Auxiliary president, Mrs. Thomas J. Clark of Oakland, will be entertained.

Mrs. N. N. Brown, *President.*

* * *

Los Angeles County.—A Christmas party, together with gifts and a one-act play, featured the December meeting of the Los Angeles County Woman's Auxiliary, held in the Association building on the 17th. Gifts of food, clothing, and toys, brought to the meeting by the members, were later packed into baskets and distributed the day before Christmas to fifty families of the profession, who were incapacitated either by age or illness.

"The Doctor's Christmas Dinner," a play written by Mrs. Mark Albert Glaser, was put on by a spirited cast under the competent direction of Mrs. Charles E. Futch. This comedy represented a familiar scene in every doctor's household—the impatient family gathered about the table for a delayed dinner party. When the doctor does finally appear and a happy occasion is in sight, the inevitable emergency call comes and the doctor, like an old fire-horse keen for the fray, speeds off on his errand of mercy. The members of the cast included: Mesdames William R. Molony, Jr., Walter H. Boyd, Elizabeth G. McKelvey, E. B. Plimpton, A. Brockway, Dr. Silas A. Lewis, and Mr. Frank Tote.

Not included in the script of the play, came a near tragedy when Dr. Silas Lewis, impersonating the head of the house, flourished his carving knife realistically over the beautifully browned turkey, which his audience knew was to be raffled off later and, therefore, to be kept intact. Of this, the doctor's able acting seemed to give no hint, and the contour of the fine bird remained in jeopardy until the phone call rushed the carver from the scene to save a patient. The turkey raffle brought in proceeds of $25, which were used in helping to provision the Christmas baskets.

Mrs. Steele F. Stewart concluded the program with an excellent review of Hans Zinsser's colorful book, "Rats, Lice, and History." As the Lilliputians conquered Gulliver, so has the infinitesimal louse conquered great armies and changed the history of the world by spreading disease and destruction. Only since the life history of this insect has been studied and revealed by scientific workers has man become in part a conqueror, and only by constant and adequate vigilance can he remain in the ascendancy. This book presents a challenge to the world and a triumph for scientific research.

Mrs. Harold E. Crowe, *Corresponding Secretary.*

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Sacramento County.—The regular meeting of the Woman's Auxiliary to the Sacramento Society for Medical Improvement was held at the home of the president, Mrs. Frederick N. Scatena, on Tuesday evening, December 17, 1935. There was no business meeting, as the occasion was planned as a Christmas party. Each member brought a "white elephant" gift, which was placed in a large basket in the entrance hall. Everyone played bridge and visited in the rooms, which were beautifully decorated for the holiday season. The president presented her Executive Board as hostesses for the evening.

The program chairman, Mrs. Harry Kanner, introduced Mrs. Irma Sheean and Mr. Rudolph Caffan, who sang, both as soloists and in duets, accompanied by Mrs. Zue Geery Pease. After the entertainment and cards, Mrs. E. O. Brown acted as Santa Claus and distributed the gifts. Light refreshments followed, served by Mesdames Scatena, Harry Kanner, A. K. Dunlap, William Van Den Berg, F. B. Brendel, T. Binkley, W. A. Reckers, J. T. Vance, E. O. Brown, Russel Harris, E. T. Rulison, Lorenz Ruddy, and George Foster.

Sarah L. Brendel, *Corresponding Secretary.*

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Santa Clara County.—The regular meeting of the Woman's Auxiliary to the Santa Clara County Medical Society was held on January 6 at Saren's in San Jose, with Mrs. Russel Lee presiding. Our guests, Mrs. Thomas J. Clark of Oakland and Mr. Louis Olsen of Palo Alto, spoke before the business session. Mrs. Clark told of the aims of the Auxiliary and of its growth. In her charming way she brought us in closer touch with the State and National Auxiliary organizations and with the work they are doing. Mr. Olsen, public health officer of Palo Alto, spoke on *Epidemiology*. He touched on the history, type and control of epidemic diseases such as plague, cholera, smallpox, typhoid, and typhus.

At the business meeting fifty members answered to the roll call. A paragraph from a letter from the Los Angeles County Woman's Auxiliary regarding the radio broadcasts was read. The program chairman announced that a party to include the husbands is being planned, and the exact date will be set in the near future.

Mrs. Merlin Maynard, *Corresponding Secretary.*

NEVADA STATE MEDICAL ASSOCIATION

R. O. SCHOFIELD, Boulder City..............................President
C. E. SECOR, Elko..President-Elect
HARRY W. SAWYER, Fallon...............First Vice-President
W. H. FROLICH, East Ely..................Second Vice-President
HORACE J. BROWN, Reno..
......Secretary-Treasurer and Associate Editor for Nevada

COMPONENT COUNTY MEDICAL SOCIETIES

CLARK COUNTY

The Clark County Medical Society held its monthly meeting on December 9, 1935, at the Sal Sagev Hotel. The following members were in attendance: Doctors Martin, Mildren, Balcom, Garrison, Van Meter, Jannson, Scofield, Slavin, Bryan, Blinstrub, McDaniels, and Woodbury. Guests of the Society were Doctors Schenck, De Smit and McKee, and Mr. Larson, x-ray technician of the Boulder City Hospital.

The Society was extremely fortunate in having for its guest and speaker of the evening, Dr. Ross Moore of Los Angeles. Doctor Moore has interested and acquainted himself with the field having to do with the autonomic system. The speaker, with the aid of charts, discussed the functions and the relationship of that system with the other systems and organs of the body. He was especially enthusiastic concerning research and experimental work under consideration, revealing the interrelationship of the autonomic system and the endocrine glands. It was his feeling that as additional knowledge is uncovered concerning the functions of the autonomic system, so will a much broader and more accurate insight into the field of therapeutics—both medical and surgical—be gained. Already progress has been made in the surgical treatment of those bugaboos of medicine, namely, arthritis and hypertension, through the resection of certain fibers of the autonomic system. The Society is deeply indebted to Doctor Moore for the pleasing and enthusiastic manner in which a rather technical subject was presented.

Following the address by Doctor Moore the Society proceeded with the election of officers. Dr. J. R. McDaniels, Jr., of Boulder City, was elected president; Doctor Scanlon of Searchlight, vice-president; and Doctor Slavin of Las Vegas was reëlected secretary-treasurer. New members elected to the Society included Doctors Schenck and De Smit of the Boulder City Hospital staff, and Doctor Bryan, who transferred from his Society in Mississippi to the local unit.

Hale B. Slavin, *Secretary.*

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American College of Physicians, Detroit, March 2-6, 1936. Mr. E. R. Loveland, 133 South Thirty-sixth Street, Philadelphia, Executive Secretary.

American Medical Association, Kansas City, Missouri, May 11-15, 1936. Olin West, M. D., 535 North Dearborn Street, Chicago, Illinois, Secretary.

Annual Congress on Medical Education, Medical Licensure and Hospitals, Chicago, February 17-18, 1936. Dr. W. D. Cutter, 535 North Dearborn Street, Chicago, Secretary.

California Medical Association, Coronado, May 25-28, 1936. Frederick C. Warnshuis, M. D., 450 Sutter Street, San Francisco, Secretary.

California Tuberculosis Association, Sacramento, April 2-4, 1936. Mr. W. F. Higby, 45 Second Street, San Francisco, Executive Secretary.

Medical Broadcasts*

The American Medical Association broadcasts over WEAF, the red network instead of the blue, as formerly, and certain additional stations of the National Broadcasting Company at 5 p. m., eastern standard time (4 p. m. central standard time, 3 p. m., mountain time, 2 p. m. Pacific time), each Tuesday, presenting a dramatized program with incidental music under the general theme of "Medical Emergencies and How They Are Met." The title of the program is "Your Health." The program is recognizable by a musical salutation through which the voice of the announcer offers a toast: "Ladies and Gentlemen, Your Health!" The theme of the program is repeated each week in the opening announcement, which informs the listener that the same medical knowledge and the same doctors that are mobilized for the meeting of grave medical emergencies are available in every community, day and night, for the promotion of the health of the people. Each program will include a brief talk dealing with the central theme of the individual broadcast.

Pacific Network.—The stations on the Pacific network are KGO KPO KFI KGW KOMO KHQ KFSD KTAR.

* * *

San Francisco County Medical Society.—The radio broadcast program for the San Francisco County Medical Society for the month of February is as follows:

Tuesday, February 4—KYA, 6 p. m.
Tuesday, February 11—KYA, 6 p. m.
Tuesday, February 18—KYA, 6 p. m.
Tuesday, February 25—KYA, 6 p. m.

* * *

Los Angeles County Medical Association.—The radio broadcast program for the Los Angeles County Medical Association for the month of February is as follows:

Saturday, February 1—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, February 1—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, February 4—KECA, 11:15 a. m. Subject: The Highway of Life.
Saturday, February 8—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, February 8—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, February 11—KECA, 11:15 a. m. Subject: The Highway of Life.
Saturday, February 15—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, February 15—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, February 18—KECA, 11:15 a. m. Subject: The Highway of Life.
Saturday, February 22—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, February 22—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, February 25—KECA, 11:15 a. m. Subject: The Highway of Life.
Saturday, February 29—KFI, 9 a. m. Subject: The Highway of Life.
Saturday, February 29—KFAC, 10:15 a. m. Subject: Your Doctor and You.

Mental Disease Is Discussed at Meeting of Dental Alumni.—Investigation into the causes of mental sickness involve two schools of research, the physiological and the psychological, according to a paper read by Dr. George S. Johnson, professor of neuropsychiatry in the Stanford University School of Medicine. The physiological school, he said, considers anatomy, neuropathology, chemistry, etc., in an effort to reach the source of the mental symptoms. The psychological school takes little or no account of any possible relationship between the mental processes or symptoms and changes in the brain.

The ancient conceptions that mental diseases were due to weird and mysterious agencies, the gods and devils of superstition, prevailed until comparatively recent times, when psychiatry began its beneficent ministrations, largely as a humanitarian movement. The early leaders in this movement help to establish the belief that those who were insane were sick, and thus cleared the path for intensive inquiry into the real nature and causation of mental disease.

Strange Action of Latent Infections Detailed in Paper.—The strange action of many latent or "symptomless" infections of both animals and humans were detailed at length in a paper prepared by Dr. Karl F. Meyer, director of the Hooper Foundation, University of California Medical School, for presentation to the annual meeting of the Society of American Bacteriologists in New York.

In the paper Doctor Meyer stated that a measles infection under the influence of convalescent serum may be modified to an unrecognizable condition, absence of fever or Koplik's spots, with an indefinite rise in temperature.

"Yet it is well known that these so-called 'mitigated forms' of measles are highly infectious and not infrequently the nodal centers for large epidemics."

The analysis of "silent or resting infection" introduced by surgeons during the war to characterize the delayed appearance of tetanus and gas gangrene infections, was touched on in the paper. According to investigations, spores of the tetanus bacillus may remain at the site of the inoculation in animal experimentation or may be carried to various parts of the body where they persist for long periods.

Certain infections introduced into the human body by traumatic injuries or gunshot wounds, especially shrapnel splinters, may remain within the wound or scar tissue without causing the least reaction. But they are a constant source of danger. An operation for the removal of shot fragments, performed weeks, months or years after the original injury, may lead either to a local or general tetanus or a rapidly fatal gas gangrene infection.

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* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to California and Western Medicine, 450 Sutter Street, San Francisco, for inclusion in this column.

Sunday Pathology and Radiology Conferences at Coronado.—Sunday, May 24, 1936, the day before the California Medical Association annual session, will be devoted to the annual Cancer Commission conferences on radiology and pathology. Programs will be announced in later issues of CALIFORNIA AND WESTERN MEDICINE. Put the date on your calendar now.

Herzstein Lectures for 1936.—The Morris Herzstein course of medical lectures for 1936 will be given by Dr. John Gerald FitzGerald on March 2, 3, and 4. Doctor FitzGerald is professor of hygiene and preventive medicine, director of school of hygiene, director of the Connaught Laboratories, and dean of the faculty of medicine at the University of Toronto.

The titles of the lectures are:

March 2—Precept and Practice of Preventive Medicine.

March 3—The Practice of Preventive Medicine in the Prevention and Control of Diphtheria.

March 4—The Practice of Preventive Medicine in the Prevention of Localized Staphylococcic Infections.

The Morris Herzstein lectures were established in 1929 by the late Dr. Morris Herzstein of San Francisco, to be given under the direction of the medical schools of Stanford University and the University of California.

New Registration Law of California.—Registration laws enacted by the last legislature have made it necessary to postpone the securing of signatures for the Qualifying Certificate (Basic Science) initiative for two years. The following newspaper clipping gives information concerning registration dates:

"The presidential primary election in California on May 5 will have a vital bearing on the national election.

"You cannot vote in the presidential primary in California unless you re-register by March 26.

"The deadline is nearing.

"No matter when you registered previously, unless you have re-registered since January 1, you must register again."

National Health Council.—Health protection for the public of the United States is disposed of with the expenditure of only 50 cents annually per person in tax money, compared with the annual average expenditure of $4.52 per person for police protection and $3.32 per person for fire protection.

This is but one item in a pamphlet, "Health Facts," just off the press, published by the National Health Council, 50 West Fiftieth Street, New York City, as part of the material for the Health Today and Tomorrow campaign, recently launched and planned for the winter and spring months: . . .

We are graduating as many persons from the community into nervous and mental hospitals as we are sending out into the community each year from our colleges and universities. More than 50 per cent of all hospital cases in this country are those of some form of mental illness. The present annual average of mental cases recovered or improved is about 40 per cent.

Another statement: Relief funds make little appreciable addition to health services for the needy. Social Security Act appropriations, when they become available for public health work, will not be large enough to make up for the depression shrinkage in regular health department appropriations since 1929. . . .

Forty-eight per cent of the nurses available for community services are paid from private funds. On the other hand, the public health nursing service is the largest single item among public health expenditures—about one-third to one-half of the tax funds for public health goes to pay for public health nurses. Yet the total number of nurses now serving the country, however, amounts to only one-third of the number needed in communities. Public health nursing organizations have suffered a 10 per cent reduction in income, while the volume of free service has had to be increased.

Los Angeles County Medical Association: Membership Statistics. — The January "Bulletin" included the following interesting membership figures of the Los Angeles County Medical Association in the annual reports:

Membership in 1919	749
Membership in 1920	898
Membership in 1921	1,036
Membership in 1922	1,235
Membership in 1923	1,317
Membership in 1924	1,453
Membership in 1925	1,549
Membership in 1926	1,590
Membership in 1927	1,674
Membership in 1928	1,726
Membership in 1929	1,851
Membership in 1930	1,904
Membership in 1931	2,013
Membership in 1932	2,009
Membership in 1933	2,077
Membership in 1934	2,143
Membership in 1935	2,260

Reduced Mortality from Pneumonia.—Reduced mortality from pneumonia may be expected if plans of the Medical Society of the State of New York are successful.

A statement issued by Dr. Thomas F. Farmer of Syracuse, chairman of the Public Health and Medical Education Committee of the Society, states:

"Pneumonia kills about 12,000 persons in New York State every year. A considerable proportion of these persons suffer from types of the disease for which serum is available. The early use of serum in these cases will save many lives."

The development of the work is in direct charge of Dr. Russell L. Cecil of New York City, chairman of the pneumonia subcommittee. According to Doctor Cecil, the public should know that almost every case of pneumonia starts with a cold accompanied by fever. Early diagnosis is imperative for effective medical care.

Says Doctor Cecil in a statement issued by the medical society: "While serum is not available for all types of pneumonia, it is for some of the most prevalent forms. We hope to bring to the attention of the public the vital need for skilled nursing care. Generally, members of the household will not do. In no other disease does nursing care count for more in the battle the patient is making for his life. Nursing organizations are planning to extend nursing care for pneumonia patients. Too much must not be expected of the serum; it is a great help, it is true, but it will not supplant adequate medical and nursing care."

World Given Method to End Dentistry Pain.—The International News Service dispatch which follows promptly made for itself a place in the lay press and radio broadcasts:

> New York, Jan. 22.—The dread of a dentist's drill was eliminated today when painless dentistry became a reality.
>
> A secret formula of "anti-pain liquid" was disclosed by the discoverer, Dr. Leroy L. Hartman of Columbia University at a joint meeting of two New York district dental societies.
>
> Doctor Hartman refused $250,000 for the formula, preferring to donate it "to humanity."
>
> The discovery, climaxing twenty years of personal research, will enable dentists to make a tooth insensitive to pain during treatment, at a cost of less than one-half cent.
>
> The application is simple. A pellet of cotton moistened with the solution is applied to the tooth. Drills may then be applied without pain to patients.
>
> "This is my humble contribution to humanity, and I hope it will be the means of relieving much unnecessary pain," said the silver-haired discoverer.
>
> Chemical firms today started preparation of the solution, which can be supplied in twenty-four hours.
>
> The formula, by weight, follows:
>
> Thymol, one and a quarter parts.
>
> Ethyl alcohol, one part.
>
> Sulphuric ether, two parts.
>
> Dentists ranked the discovery with the demonstration of anesthesia in surgery in 1846.
>
> Doctor Hartman spent eighteen years in research work before he found the formula.
>
> Doctor Hartman said it had been tested in five hundred cases and proved thoroughly successful. A half-ounce bottle, costing less than $1, suffices for two hundred applications.

Los Angeles "Chinese Doctor" of Fifty Years Ago. The Los Angeles *Herald-Express* prints, daily, excerpts from its paper of fifty years ago. The issue of January 28, 1886, contained the following:

"Los Angeles has the novel sight, to many, of a Chinese doctor who drives in style to visit numerous white patients and administer his doses of whisky-soaked lizards. He goes dressed in the finest silks, drives a fine horse, sits in a costly buggy and is 'allee samee Melican doctor,' only he makes more money."

Radium Victim Gets French Honor Legion Cross.—International News Service prints:

"Paris, January 25.—Dr. Eugene Beaujard, famous French electroradiologist and victim of his own experiments with radium, has now lost his right hand and in return has been awarded the Cross of the Legion of Honor.

"Minister of Public Health Ernest Lafont went to Doctor Beaujard's bedside in Diaconesses Hospital here immediately after the operation and informed him that, in recognition of his sacrifices to science, the president of the republic had awarded him a decoration.

"The 62-year-old radiologist has already resumed work at the Bichat Hospital."

Mary's Help Hospital.—Dr. A. S. Musante, president of staff, has sent the following letter:

"*To the Editor:*—Relative to the resignation of Dr. Alfred C. Reed, mentioned in the January issue of your publication, I have been requested to advise you that Doctor Reed's resignation was accepted with a vote of thanks for his efficient work as head of the medical department of Mary's Help Hospital for the last eight years."

Hospital Council of Southern California: Bulletin on Special Nurses' Fees.—The Hospital Council of Southern California, over the signature of R. E. Heerman, secretary, 1414 South Hope Street, sent out in January the following announcement:

> At the regular monthly meeting of your Executive Committee on January 9, 1936, the matter of increasing the special duty nursing rate from a basic $5 for eight hours to $6 for eight hours, as now being discussed by the California Nurses' Association, District 5, was brought to the attention of the members of the committee, and after a complete discussion of the matter they instructed me to issue this communication to you advising you of the following action:
>
> It was recommended that we petition the nurses' organization to consider the matter of increased rates and discuss the situation with a committee from the Hospital Council. The committee members expressed themselves as being in sympathy with plans to increase compensation to special duty nurses, but did not feel that this was the opportune time, for the following reasons:
>
> First: The public are still having difficulty in paying the full cost of hospitalization and always considers the special nurse's bill as part of the hospital bill.
>
> Second: Most hospitals are still running deficits, and until the public are able to pay the full cost of hospitalization so that adequate increase in wages can be given to general duty nurses they do not feel that preference should be given to those doing special duty.
>
> Third: Many doctors are protesting such increase, as it will prevent hospitalizing patients and, if hospitalized, will force such cases to be taken care of on general duty, thus increasing the cost to the hospital.
>
> Fourth: Unless we can get the sympathetic understanding of the public, together with the doctors and hospitals, such increase in special nursing rates would tend to decrease hospitalization and calls for special nurses and throw an additional financial burden on hospitals, and at the same time decrease the possibility of doctors collecting any part of their fees.
>
> This bulletin is issued in the spirit of coöperation, feeling that the best interests of the medical profession, hospitals, and nurses can be served by an understanding of these common problems and that hospitals should act as groups instead of individual units.

Ophthalmology Examinations.—The American Board of Ophthalmology announces that examinations for 1936 will be held in Kansas City, Missouri, on May 11, at the time of the meeting of the American Medical Association, and in New York City in October at the time of the meeting of the American Academy.

All applications for case reports must be filed at least sixty days before the date of examination.

Information, syllabuses, and application forms may be obtained from Dr. Thomas D. Allen, assistant secretary, 122 South Michigan Avenue, Chicago, Illinois.

Next Five Years to Be Made Safer Years in Auto Traffic.—Vehicide is to be made increasingly unpopular during the next *lustrum*, if plans of the National Safety Council eventuate successfully, for that organization has just announced a five-year, country-wide campaign to reduce motor-vehicle deaths at least 35 per cent by the end of 1940, looking toward the saving of at least 38,000 lives during the period. The drive started January 1, 1936.

It will be continued with growing intensity and momentum during the five-year period. It will be localized for each state and for virtually every city, where closest coöperation will be maintained with public officials, traffic safety leaders, safety groups, leaders in education, civic organizations, and interested individuals. It is planned to coördinate much of the existing safety effort, to centralize and standardize the work through application of tested methods proved by successful experience. Close coöperation with federal groups is assured.

The campaign, chiefly educational, will include a broad program of engineering and enforcement activities. The Council realizes that spasmodic safety drives have not yielded the desired permanent results. The serious nature of the problem demands a much broader program than has been attempted. Success will be sought by developing new ways of appealing to the individual motorist, to arouse a sense of responsibility and of good sportsmanship. A definite state-wide school program will be recommended for each state, together with the organization of state safety councils and localized organizations in municipalities.

Adoption of uniform laws, including standard drivers' license legislation, will be urged, with adequate administration of traffic laws, including state highway patrols. Standardization of accident reports also will be undertaken, as well as provision for more complete accident statistics, with their interpretation and application. Detailed engineering, enforcement and educational technique of the states and cities now doing outstanding work will be made available to the country at large, as one of the initial steps in the program.

The formal resolution, adopted unanimously by the Executive Committee at its November meeting, "pledges the Council's whole-hearted assistance and the active efforts of thousands of its members in all parts of the country, and invites the coöperation of all interested organizations and agencies to the end that during this five-year program at least 38,000 lives shall be saved and the killing and maiming of little children and all our people shall cease upon our highways."

The time is especially propitious. The 1935 toll of death and injury promises to approximate the tragic experience of 1934, when 36,000 persons were killed and a million and a quarter injured—of whom 150,000 will be crippled for the rest of their lives. The resolution declares that this situation "presents the most serious challenge to all who believe in a well-ordered society and the sanctity of human life."

Certain states and cities, through fine programs, have demonstrated through recent years that such an achievement is possible. Their experience shows that motor-vehicle tragedies can be not only controlled but actually reduced. Striking examples are the work of state-wide organizations in Minnesota, Massachusetts, and elsewhere. Twenty-three states have reported fewer deaths for the first nine months of 1935 than for the corresponding period of 1934; with Massachusetts reporting 14 per cent and Minnesota 11 per cent reduction. Many cities and villages, through intelligent effort, have realized big reductions this year to date.

The Council has a huge functioning organization ready to proceed with increased vigor under the impetus of this larger and more intensive program. The fourth year of the National Traffic Safety Contest, now under way, shows that thirty-three states and more than eight hundred cities have entered into this worthwhile rivalry. The new and enlarged program should cause most of them to redouble their efforts.

LETTERS

Concerning an imaginary law demanding shock-proof x-ray rooms.

California Medical Association

January 31, 1936.

To the Editor:—A few days ago I received a communication from Doctor Yocum, secretary of the San Luis Obispo County Medical Society stating that an x-ray salesman inferred to him that the last legislature passed a law which requires the owners and operators of every x-ray machine to make them shock-proof, and in the event that they don't they would be subject to a fine or legal penalty. I had not heard of any such legislation and, consequently, I asked Mr. Peart to review the bills that were passed at the last legislature.

I enclose copy of reply received from Mr. Peart.

I think this is an item of sufficient importance to merit editorial comment, and suggest that you make such comment in order that our members be not imposed upon by manufacturers of electrical equipment.

Yours very sincerely,
F. C. Warnshuis, *Secretary.*

* * *

January 28, 1936.

F. W. Yocum, M. D.,
Secretary, San Luis Obispo County Medical Society,
San Luis Obispo, California.

Dear Doctor Yocum:

Doctor Warnshuis has referred to me your letter to him, dated January 23, 1936, in which you state that you are informed that there is a California law of recent enactment which will in the near future compel every user of x-ray equipment to have it completely shock-proofed.

A careful review of the laws passed at the last legislature does not show that such a bill was passed. There was one bill passed referring to x-rays which, however, I think would not refer to equipment. This bill did not become a law.

Inquiry here among some of the high-class x-ray distributors discloses that some salesmen are trying to high-pressure doctors with statements of the character made to you.

Trusting this gives you the information desired, I am
Very truly yours,
Hartley F. Peart.

Concerning the official Journal of the California Medical Association.*

New Bedford, Massachusetts,
January 25, 1936.

Dear Doctor Warnshuis:

Two days ago I received the January issue of California and Western Medicine and have read, from cover to cover, every line. It is a splendid publication in every sense, and an example of what a state or regional journal should be. If I could afford it I would subscribe for and read it along with the journals of Pennsylvania, Texas, and Indiana. The last was most interesting in the days of Bulson's editorship. I believe that concentrating on these, with the inclusive reports of discussions of papers in the many district societies, would be more informing than hours of study of accepted standard textbooks. The medical matter is not subordinated to advertising, but prevails mightily throughout, is novel and most satisfying.

I noted the reprinting of the report of the Michigan delegates of the Atlantic City meeting of the American Medical Association on the press story of the "spanking." As I wrote you some time ago, I do believe that was a press gadget. I know nothing of the whole matter, as I heard no preliminary talk with or without malice of shifts in officers. As to Carl Moll, no one regretted more than I that he was not chosen as trustee. . . .

That we, of Massachusetts, should have been classed as "stand pat" Republicans added some mirth to our reading, as I am a Democrat, states rights variety at present seemingly rare, but I take it as a compliment. Mongan, "bewhiskered and good-natured" as he is, is our president and the one well-informed member on health insurance, and at present in the issues a bulwark of strength. . . .

With all kind regards,
Sincerely,
(Signed) Edmond F. Cody.

Illinois State Medical Society
30 North Michigan Avenue
Chicago, Illinois

January 27, 1936.

Dear Doctor Warnshuis:

Your communication of the 22nd received. I personally approve of it heartily and wonder why such a measure has not been introduced before.

I am sending it to our secretary, and it will come up at the March meeting of the Council. . . .

With best regards, I am
Cordially yours,
(Signed) Charles B. Reed,
President.

Concerning expert medical testimony: A recent legal encounter.

On page 74 comment is made concerning a recent demand by certain attorneys to force a physician to give expert medical testimony without receiving a compensating fee. The subpoena served on the physician is printed below, followed by the opinion of the General Counsel of the California Medical Association, that code enactments by the last legislature have made no change in the established law, in so far as privileged and expert medical testimony are concerned.

* * *

SUBPOENA SERVED UPON THE PHYSICIAN

In the Superior Court of the State of California in and for the County of Los Angeles
No. 395035

Subpoena Duces Tecum to Appear Before a Notary Public

J. Edward Keating, Plaintiff, vs. The Pacific Mutual Life Insurance Company of California, a Corporation, Defendant.

The People of the State of California send greetings to John Ruddock.

We command you, that all and singular business and excuses laid aside, you attend and appear before C. R. Lilhestrom, a notary public in and for the County of Los Angeles, State of California, at the office of Mills, Hunter & Dunn, 1222 Chapman Building, 756 South Broadway, in the City of Los Angeles, County of Los Angeles, State of California, on Saturday, the fourteenth day of December, 1935, at 9 o'clock a. m. of said day, then and there to testify in this cause now pending in the above-named Superior Court, on the part of the plaintiff, and for failure to attend you will be deemed guilty of contempt of court and liable to pay all losses and damages sustained thereby to the parties aggrieved, and forfeit One Hundred Dollars in addition thereto.

And you are further commanded to bring with you and there produce the following-named books, documents and other things, to wit:

Records of the taking of an electrocardiograph of J. Edward Keating in June, 1935.

Notes made on the taking and reading of said electrocardiograph.

Electrocardiograph report dated June 19, 1935, or true copy thereof, made to the defendant or to Dr. Arthur E. Mark.

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* See also Council Minutes (items 16 and 31, pages 123 and 124.

By order of the above-entitled Superior Court, this thirteenth day of December, 1935.

Attest: My hand and seal of said court, the day and year last above written.

(Seal) L. E. Lampton, *County Clerk.*
By K. E. Lynch, *Deputy.*

* * *

OPINION OF COUNSEL PEART

December 27, 1935.

To the Secretary:—Answering your recent letter regarding amendment to the statute thought to impose an obligation upon physicians to give expert testimony without compensation. As I wrote you, the statutes have not yet been printed by the State printer, so we have to examine them painstakingly by advance sheets and without the aid of an index.

We find that the amendment in question is to Section 2021 of the Code of Civil Procedure providing for the taking of depositions of witnesses. Paragraph 1 of this Section now reads as follows, the words in italics have been added by the amendment of 1935:

"1. When the witness is a party to the action or proceeding or an officer, member, *agent, or employee* of a corporation, *or the agent or employee of a municipal corporation,* which *corporation or municipal corporation* is a party to the action or proceeding, *or an agent or employee of an individual who is a party to the action or proceeding,* or a person for whose immediate benefit the action or proceeding is prosecuted or defended."

This amendment does not affect a physician as an expert witness in any manner. It merely provides for the taking of the deposition of an agent or employee.

In the case of *Webb* v. *Lewald Coal Company,* the Supreme Court held that a physician who made a confidential report on a patient's condition, without treatment, could not be compelled to testify in regard to the patient's physical condition. This decision may be construed as determining that the relation of agency exists as between patient and physician.

You read me portions of the subpoena served on Dr. Ruddock, which, in our opinion, merely requires Dr. Ruddock to appear at a time and place specified and to give his deposition as to facts, and to produce the records specified.

The opposing attorney will doubtless very properly raise the question as to whether or not Dr. Ruddock is an agent or employee within the meaning of this Section. Before the amendment was adopted, Dr. Ruddock could be subpoenaed to attend the *trial* of this case and produce his records. Under the amendment, he may be subpoenaed to *give his deposition before the trial,* and that is all that the amendment does. This is based on the assumption that it will be held that Dr. Ruddock is an agent or an employee of some party to the action.

In our opinion, Dr. Ruddock can no more be compelled to give expert or opinion evidence without compensation at the taking of his deposition than he could be at the trial of the action.

The question of privilege also arises, and the patient's attorney, unless the privilege is waived, will doubtless object, if the testimony sought to be elicited from Dr. Ruddock is, in fact, privileged.

I trust that this will clarify the matter. I, of course, do not know the facts, or Dr. Ruddock's relation to the case, or who is calling him, whether his own patient or the opposing side; I do not have a copy of Dr. Ruddock's letter, mentioned by Dr. Kress.

As to opinion evidence, the amendment does not change the law at all. We wrote an extensive brief on this subject as *amicus curiae* in the above-mentioned case of *Webb v. Lewald Coal Company* (214 Cal. 182), copy of which is in your files. The Supreme Court did not pass on the question of compensation of a physician called as an expert. It holds that a physician may properly act for a patient without having thereby prescribed for or treated him, and the testimony of the physician may be privileged under subdivision 4 of Section 1881 of the Code of Civil Procedure, if he merely acts for the patient, even though the patient is deemed, when he brings an action for damages for personal injuries, to have consented to permit "any physician who has prescribed for or treated" him for such injuries to testify; and in such action, where patient had a neurologist examine her and make a report to aid her counsel in preparing for trial, but he did not "prescribe for or treat" her, his testimony was privileged.

I am endeavoring to locate a copy of this brief, and if I find it I will mail a copy to Dr. Ruddock.

I am sending copies of this letter to Dr. Ruddock and Dr. Kress.

Very truly yours,
Hartley F. Peart.

Concerning "vaccines" against anterior poliomyelitis.*

State of California
Department of Public Health
Sacramento

December 19, 1935.

Dr. George Parrish,
Health Officer,
Los Angeles, California.

My dear Doctor Parrish:—We have just received a report from the Surgeon-General, United States Public Health Service, regarding poliomyelitis following vaccination against this disease. This article, prepared by Dr. J. P. Leake, Medical Director, United States Public Health Service, will appear in the *Journal of the American Medical Association* of December 28.

Inasmuch as three of the cases listed in his report occurred in California, I am recommending that the use of vaccination against poliomyelitis be discontinued in this state.

Very truly yours,
W. M. Dickie, M.D.
Director of Public Health.

* * *

City and County of San Francisco
Department of Public Health

December 28, 1935.

To the Editor:—Doctor Geiger has instructed me to forward you the enclosed copy of Executive Order No. 119 that you may be informed of the attitude of the Director of Public Health on the use of immunizing agents against acute anterior poliomyelitis.

On authority from the Director of Public Health.

Sincerely,
Jacques P. Gray, M. D.,
Assistant Director of Public Health.

* * *

Executive Order Number 119

On the basis of the public announcement in the medical literature and in the press of the accumulated evidence against the use of so-called "vaccines" to protect the human against acute anterior poliomyelitis ("infantile paralysis"), by Medical Director J. P. Leake of the United States Public Health Service, and others, thereby confirming the recommendations made to the Director of Public Health by his Committee on Acute Anterior Poliomyelitis in the session of April 4, 1935, the use of such "vaccines" or other similar "immunizing" agents is prohibited within the city and county of San Francisco.

This action is believed indicated and appropriate as a public health measure directed at the control of a communicable disease, particularly because the evidence referred to supports the premise that acute anterior poliomyelitis occurs with a greater frequency in those "immunized" than in those not "immunized" in comparable population age groups under comparable conditions.

December 27, 1935.

Concerning privileged information: To whom may it be given:

State of California
Legal Department

San Francisco,
January 15, 1936.

W. M. Dickie, M. D.,
Director of Public Health,
312 State Building,
San Francisco, California.

Dear Sir:—In your communication of the 8th instant you state that you are frequently called upon to furnish information contained in morbidity reports of cases of in-

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*Article by Dr. J. P. Leake, reprinted from the *Journal of the American Medical Association,* December 28, 1935, appears on page 141.

fectious diseases. These reports, it appears, are submitted to your department pursuant to Section 297a of the Political Code and Section 16 of the Public Health Act, respectively.

You further state that you have for consideration two such requests at the present time, one being from the State Compensation Fund. The latter request is for the records of purported tuberculosis patients who are applying for compensation in "silicosis" proceedings. You ask whether such a state agency is entitled to these records of your department when such are needed for the performance of its duties.

In reply permit me to state that neither the State Compensation Fund nor any private agency is entitled to any information concerning individually named persons which is furnished to you under sections of the laws above referred to.

Section 2979 of the Political Code provides that the State Board of Public Health may publish statistics relative to numbers of cases of communicable diseases, and such further comparative statistics and information as may be deemed of value to scientists, the medical profession, the general public, and of aid in the maintenance of good health conditions. The Section is permissible only, subject to the limitations above noted, and contains no language which would indicate that the Board has authority to supply to anyone information concerning individuals.

Section 16 of the Public Health Act (Statutes 1907, p. 893, as amended) requires certain named persons, among them being physicians, to report the illness of any person of any infectious, contagious or communicable disease. It is required that this information be reported to the county, city and county, city, or other local health board or health officer, together with the name of the person, if known, and the place where such person is confined, and the nature of the disease, if known.

Section 11 of the Public Health Act requires county health officers, etc., to report in writing to the State Board of Health at certain specified times, information they have secured concerning infectious, contagious, and communicable diseases coming to the formers' knowledge. Section 13 subjects local health officers to the rules, regulations, and orders of the State Board of Health, or its secretary, and it is my understanding that reports concerning the diseases enumerated in such section are made pursuant to either regulations or orders of the State Board of Health, or its secretary, respectively, and under Section 2979a, which is the statutory counterpart of Section 16 of the Public Health Act.

A careful reading of the sections referred to fails to intimate that it is the duty of any health officer to supply information to members of any private or State agency. In fact, Section 2979a distinctly provides that official records of tuberculosis cases shall be for official use only and not open to public inspection. The latter portion of this section permits the State Board of Health, or its secretary, to take necessary measures to prevent the spread of such contagion, but this power is more commensurate with the right to quarantine than it is with the right to disclose information secured by either the State Board of Health or the Department of Public Health.

Reports furnished to you are not public records unless so declared by statute or unless, at least, a statute authorizes the publication of the matter therein contained. Section 2979 of the Political Code contemplates the publication of statistics only, and it has already been adjudicated in this State that not every record is public because of the fact it is filed with a public agency. (*Colnon* v. *Orr,* 71 Cal. 43.)

You are, therefore, advised that you are not required to furnish information contained in morbidity reports concerning individuals to any state or private agency, even though such reports relate to disease other than tuberculosis.

You also refer to the request of private agencies for names of persons afflicted with certain infectious diseases. These agencies, you point out, desire to solicit from such persons blood to be used in a serum for scientific purposes.

What has been hereinbefore stated is applicable to this situation as well. While it may well be that the furnishing of the names and addresses of these persons would be an advantage in the preparation of serums for use in the treatment of other diseases, the legislature has made no provision for the supplying of this information.

While Section 1881 of the Code of Civil Procedure does not deal with the subject of reports required by law to be made to the State Board of Public Health, it does state, "There are particular relations in which it is the policy of the law to encourage confidence and to preserve it inviolate"; and thereafter prohibits, except in certain stated instances, a licensed physician or surgeon from testifying in a civil action except with the consent of his patient. All such sections together would seem to indicate the intention of the legislature was to permit reports concerning individuals to be made to the State Board of Public Health for possible action by the Board or its secretary with respect to an individual case. Certainly the sections cannot be said to contemplate that any company or state agency might indirectly secure through the Board information which a physician is prohibited from disclosing except with the consent of his patient.

This does not mean that you could not advise private or public agencies the names of physicians handling certain types of cases (as for example, poliomyelitis), but it would seem to be incumbent upon such physicians to secure the consent of a patient before they could disclose to such agencies the patient's name. There would, likewise, seem to be power in the Board in proper instances to ascertain from the physician in attendance whether it might directly contact the patient to learn if the patient objected to giving blood for a serum either to the State or any public or private agency.

Very truly yours,

U. S. Webb, *Attorney-General.*
By Lionel Browne, *Deputy.*

Concerning proposed public health work under the Social Security Act.

State of California
Department of Public Health
Sacramento

January 16, 1936.

To the Members, State Board of Public Health:

Gentlemen:—Under the Social Security Act, if and when Congress appropriates the amount which has been recommended by the Administration, California's allotment for rural health and sanitation will be in the neighborhood of $200,000. These funds will be allocated by the United States Public Health Service.

The president of the Board, the director, and the regional consultant to the United States Public Health Service have had numerous conferences in reference to a program for the expenditure of these funds in the State of California. The carrying out of the program will place a great deal of additional work and supervision on this department. We feel that a bureau of county health supervision should be established, and a physician as chief of the bureau be selected who has had experience in the promotion of county health work, and who will act as administrative officer for the supervision of this work. It will be necessary to provide such personnel as secretary to the chief, stenographer, accountant, and supervising nurse.

It has been suggested by the United States Public Health Service that the Board consider the establishment of a bureau of industrial hygiene.

It has also been suggested that funds be set aside to pay for the inspection and control of psittacosis.

We have received a request from the United States Public Health Service that we take over the employment of eighteen rodent-control men, who have been with the Service for many years, and that their salaries be paid out of Social Security funds, which would amount to something like $20,000 a year. This, with the activities outlined above in connection with the State Department of Public Health, would total about $50,000 annually.

The remainder of the funds that are allocated are to be used for strengthening of existing whole-time health departments in the way of adding additional sanitary inspectors and public-health nurses; organizing an additional four or five whole-time health departments in those counties which do not have such an organization, but have sufficient population to justify same. This would care for the major portion of the population of the State in some twenty-odd counties, leaving thirty-eight rural counties with small populations (from 250) to be divided into districts according to geographical lines. Each of these districts would have a whole-time health officer, sanitary inspectors, and public-health nurses living in the various community centers, who will act as representatives of the district health officer. There would also be a traveling unit, consisting of some of our present and additional personnel, to take care of emergencies that might arise.

This program probably could not be carried out during the first few years, but should be the ultimate goal, so that the whole State may have adequate public health service.

In addition to the foregoing, it is proposed that a school of public health be established on the Coast, to which the health officers of the western states will have the privilege of sending personnel to receive education in their particular field. This will be financed by other funds which will be expended in each state by the health officer for scholarships and maintenance expense of the candidates.

Very truly yours,

W. M. Dickie, M. D.,
Director of Public Health.

Concerning anesthesia administration in California.

State of California
Legal Department

San Francisco,
January 14, 1936.

James P. Dobyns, Managing Editor,
Hospital Management,
612 North Michigan Avenue,
Chicago, Illinois.

Dear Sir:—I have your communication of the 3rd instant in which you ask certain questions concerning anesthesia administration in California.

In reply please be advised that this office has heretofore interpreted the Medical Practice Act of this State to include anesthesia administration as part of the practice of medicine, and as such to be carried on only by medically licensed practitioners.

We have also expressed the view that it is sufficient that a doctor of medicine be in charge of the administration of anesthetics though the administration of anesthetics be by an assistant, provided the responsibility for the giving of the anesthetics is that of the licensed person, that the person actually administering the anesthetic do so as the assistant or "extra hands" of the licensed person, and that the assistant follow instructions of the licensed person and not exercise independent judgment in the diagnosis, treatment or condition of the patient. We have also expressed the view that a lay anesthesiologist may not charge the patient directly for the giving of the anesthetic, as well as that such charge could not be made by a hospital. A charge for the giving of an anesthetic would, in most instances, result in the corporate practice of medicine. In other words, we have stated that the giving of an anesthetic as well as the right to charge for the same is personal to the licensed practitioner.

Opinions of this office heretofore rendered indicate that there is no restriction upon who may assist in the administration of anesthetics as long as the administration is by or under the direction of a licensed practitioner.

Very truly yours,

U. S. Webb, *Attorney-General.*
By Lionel Browne, *Deputy.*

Concerning "California and Western Medicine" comments on federal survey of chronic diseases.

Treasury Department
United States Public Health Service

January 23, 1936.

To the Editor:—I want to take this opportunity of thanking you for the wonderful support California and Western Medicine has given to the U. S. Public Health Service survey of chronic diseases and physical impairments. I assure you that we realize the value of this means of advising the medical profession of the intent and purposes of the survey.

Mr. Sharp, regional publicity director, has advised me that both Washington, D. C., and Detroit offices of the survey are anxious to have copies of the magazine and the extensive article you so kindly published. The Government requests such things, but fails to furnish a means of remuneration, and I am wondering if you publish sufficient copies, to contribute two additional ones to this office in order that we may comply with the requests.

Again assuring you of our appreciation for the support given, I remain

Very truly yours,

Dr. Arthur Hieronymus,
State Supervisor.

208 Builders Exchange Building,
Hobart and Webster Streets, Oakland.

(Note.—Copies were sent.)

Concerning donation to Barlow Medical Library.

December 20, 1935.

Dear Doctor Warnshuis:

The check received from the California Medical Association for $129.50 as an additional gift to the library is much appreciated, and the organization desires me to express thanks for this additional gift.

The gift of the California Medical Association has enabled us to add many books to the library that would not have been possible otherwise, and, we trust, has enabled us to be of greater use to the members of the State Association as well as our own county members.

Yours, with many good wishes.

Mrs. Mary E. Irish, *Librarian.*

Concerning donation to Lane Library.

Stanford University
Office of the President

December 20, 1935.

My dear Doctor Warnshuis:

May I through you thank the members of the California Medical Association on behalf of the University for the recent check for $129.50 to be credited to the Lane Library Book Fund.

With much appreciation and all good wishes, I am,

Faithfully yours,

Ray Lyman Wilbur, *President.*

* * *

Lane Medical Library
Sacramento Street at Webster
San Francisco, California

December 19, 1935.

My dear Doctor Warnshuis:

I was so pleased to receive your check of $129.50. The generous gifts from the California Medical Association have been such a help during this period of curtailed income, and I assure you that we are most appreciative of the assistance. Please accept the thanks of the library staff, and our cordial holiday greetings.

Very truly yours,

Louise Ophuls, *Medical Librarian.*

Concerning charts illustrative of California taxation.

California State Chamber of Commerce
San Francisco,
January 17, 1936.

Members, California Medical Association:

In an effort to bring home to all of the people of the State the alarming condition resulting from the growing cost of government, the State Chamber of Commerce is issuing a series of simple charts, such as the attached, which are attracting widespread attention.

This is part of a campaign for general public education, and the story told by each of these charts cannot be too strongly stressed. We want to ask the coöperation of your publication in reprinting as many of these charts as you can.

We feel that everyone, no matter how specialized his interests, should be made to realize the meaning of the tax situation as revealed by these charts, each of which is based upon up-to-date and accurate information.

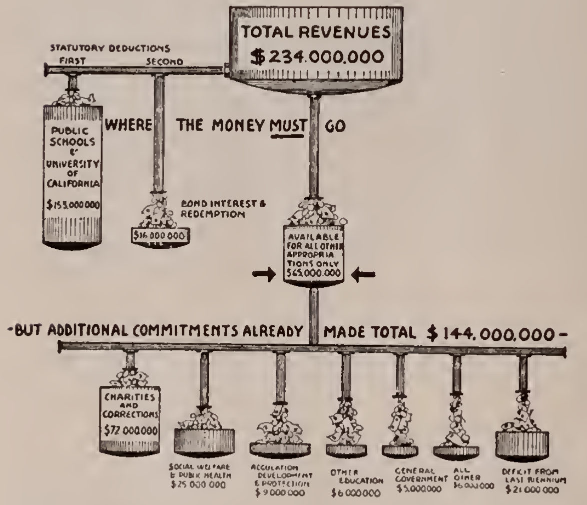
Very truly yours,
W. H. Sloane, *General Manager.*

✓ ✓ ✓

The table and charts which came with the above letter, and which have an indirect relationship to medical economics, follow:

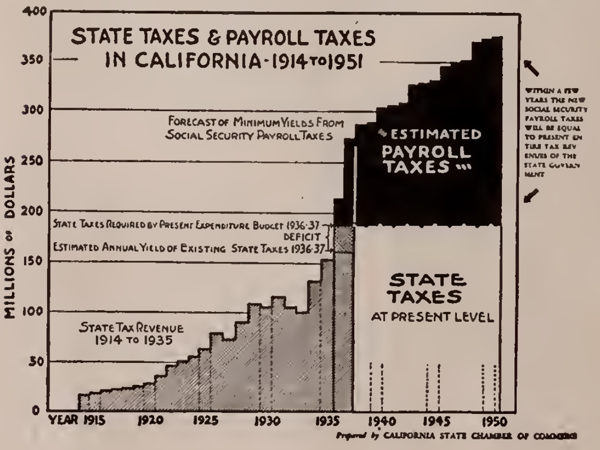
THE STATE'S GENERAL FUND REVENUES AND OBLIGATIONS

1935-37 BIENNIUM


TOTAL REVENUES $234.000.000
STATUTORY DEDUCTIONS
FIRST
SECOND
WHERE THE MONEY MUST GO
PUBLIC SCHOOLS & UNIVERSITY OF CALIFORNIA $153,000,000
BOND INTEREST & REDEMPTION
$16,000,000
AVAILABLE FOR ALL OTHER APPROPRIATIONS ONLY $65,000,000
-BUT ADDITIONAL COMMITMENTS ALREADY MADE TOTAL $144.000.000-
CHARITIES AND CORRECTIONS $72,000,000
SOCIAL WELFARE & PUBLIC HEALTH $25,000,000
REGULATION DEVELOPMENT & PROTECTION $9,000,000
OTHER EDUCATION $6,000,000
GENERAL GOVERNMENT $5,000,000
ALL OTHER $6,000,000
DEFICIT FROM LAST BIENNIUM $21,000,000

DEFICIT OUTLOOK, JUNE, 1937-79 MILLION DOLLARS

Prepared By The California State Chamber of Commerce



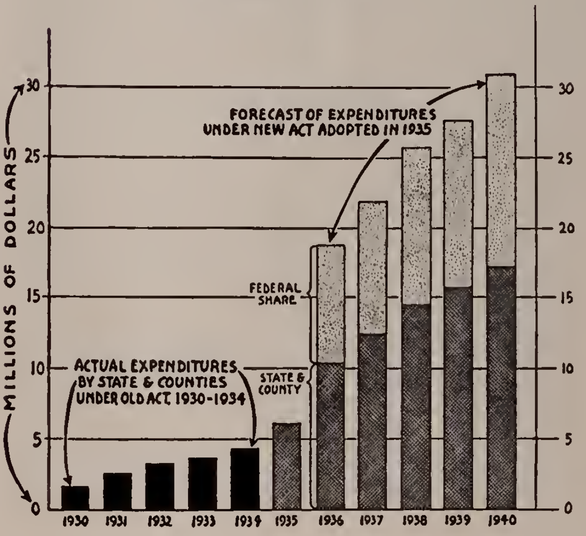
Prepared by CALIFORNIA STATE CHAMBER OF COMMERCE

California Taxes to Federal Government Analyzed. The California State Chamber of Commerce has released for publication the following statement:

> Federal taxes collected from residents of California amount to more than $150,000,000 annually, according to a statement issued by the California State Chamber of Commerce.
>
> Californians paid to the Federal Government $57,469,209 in income taxes and $17,091,635 in liquor taxes during the

CALIFORNIA OLD AGE SECURITY ACT

EXPENDITURES SINCE 1930 & FORECAST TO 1940

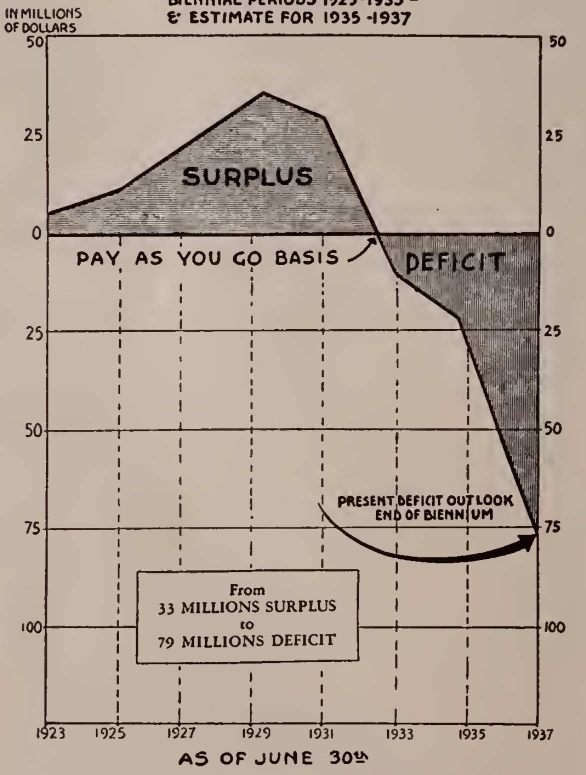


Prepared by CALIFORNIA STATE CHAMBER OF COMMERCE 1935

THE STATE OF CALIFORNIA

GENERAL FUND SURPLUS AND DEFICIT

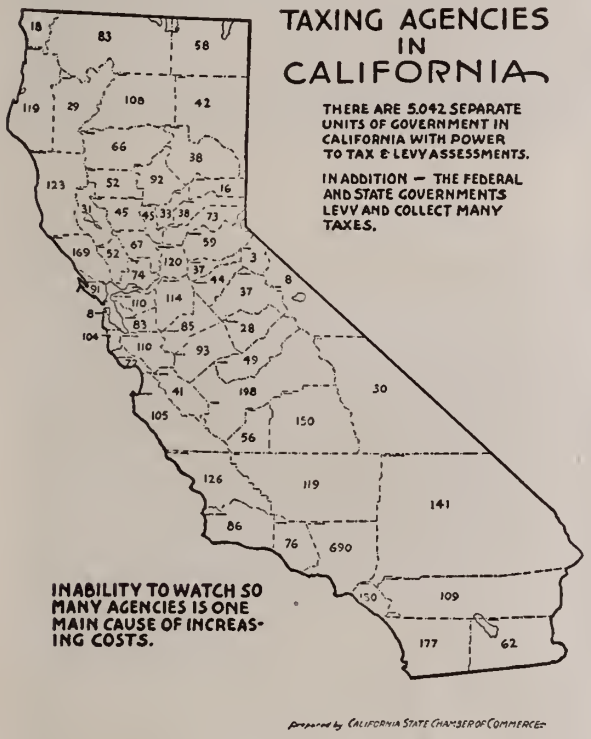
BIENNIAL PERIODS 1923-1935 - & ESTIMATE FOR 1935-1937



Prepared by California State Chamber of Commerce fiscal year ending June 30, 1934, according to the statement which was accompanied by a graphic chart illustrating the variety of federal revenue collections in this State at the present time.

Federal taxes collected in California are:

Total, all sources	$151,946,264
Income taxes	57,469,209
National Industrial Recovery Act	7,589,163
Estate tax	5,920,139
Gift tax	374,000
Liquor tax	17,091,635
Tobacco taxes	10,251,560
Flour—Mixed	554
Oleomargarine	138,658
Narcotics	26,766
Stamp taxes (documents, stock transfers, etc.)	1,691,120
Manufacturers' excise tax	33,275,015
Admissions—Theaters, cabarets, etc.	1,136,557
Club dues	607,226
Telephone, telegraph, radio messages	956,759
Oil pipe-lines	825,695
Safe deposit boxes, leases	282,677
Checks	3,597,648
Pleasure boats	12,736
Miscellaneous	55,609
Subtotal	141,302,729
Agricultural adjustment taxes	10,643,535


TAXING AGENCIES IN CALIFORNIA
THERE ARE 5,042 SEPARATE UNITS OF GOVERNMENT IN CALIFORNIA WITH POWER TO TAX & LEVY ASSESSMENTS.
IN ADDITION — THE FEDERAL AND STATE GOVERNMENTS LEVY AND COLLECT MANY TAXES.
INABILITY TO WATCH SO MANY AGENCIES IS ONE MAIN CAUSE OF INCREASING COSTS.
18
83
58
119
29
108
42
66
38
123
52
92
16
31
45
45
33
38
73
67
59
169
52
120
3
74
37
44
8
91
37
114
110
8
83
85
28
104
110
93
49
41
198
30
105
150
56
126
119
141
86
76
690
150
109
177
62
Prepared by California State Chamber of Commerce

SPECIAL ARTICLES

POLIOMYELITIS FOLLOWING VACCINATION AGAINST THIS DISEASE†

By J. P. LEAKE, M.D.*

During the past year in the United States, several thousand individuals, mostly children, have received subcutaneous and intracutaneous injections of treated poliomyelitis virus in the hope of acquiring immunity against the natural disease. The two different forms of treatment to which the virus was subjected were intended to render it innocuous when thus used as a vaccine. Through those responsible for the production of these vaccines, through several health officers and through others, word has come to the United States Public Health Service of the development, at suggestive intervals following these injections, of cases of paralytic poliomyelitis with high fatality. Though possibly subject to some correction, it is believed that the following statements represent closely the facts in each case:

1. A boy, aged five years, had his first symptoms of poliomyelitis six days after receiving the second dose of vaccine A in the left arm, the first dose having been given in the same arm twenty-seven days before the second. Paralysis began in the left arm the day after onset, and death occurred after an illness of three days.

2. A girl, aged twenty-one months, received the second dose of vaccine A in the right arm twelve days after the first dose, and the onset of poliomyelitis occurred six days after the second dose. Paralysis began in the right arm three days later, and death occurred five days after the onset.

3. A boy, aged four years, had his onset of poliomyelitis eight days after the first dose of vaccine A in the left buttock, and one day after the second dose at the same site. Paralysis began in his right leg two days later and is at present, after three months, confined to that extremity, though there is hope of ultimate nearly complete recovery.

4. A girl, aged eight years, had her onset of poliomyelitis eight days after the first dose of vaccine A in the left arm, and one day after the second dose in the same arm. Paralysis began in the arm two days later, and death occurred after an illness of three days.

5. A boy, aged eight years, had his onset of poliomyelitis eight days after the first and only dose of vaccine A in the left arm. Paralysis began in the right arm two days later, and remained as a deltoid paralysis at last accounts.

6. A boy, aged five years, had his onset of poliomyelitis nine days after the first and two days after the second dose of vaccine A in the arm. Arm paralysis began two days later, and death occurred after an illness of three days.

7. A boy, aged ten years, had his onset of poliomyelitis ten days after the first dose of vaccine A in the left arm and three days after the second dose in the same arm. Paralysis began in the right arm the next day, and death occurred after an illness of three days.

8. A girl, aged five years, had her onset of poliomyelitis eleven days after the first dose of vaccine A in the right arm, and four days after the second dose in the left arm. Paralysis began in the left arm four days later and was still present at last accounts.

9. A boy, aged fifteen months, had his onset of poliomyelitis thirteen days after a dose of vaccine B, and developed general weakness four days later, which persisted at the last report.

10. A boy, aged five months, had his onset of poliomyelitis fourteen days after a dose of vaccine B, and paralysis was first noticed nine days later. This paralysis persists at the last report.

11. A girl, aged six years, had her onset of poliomyelitis fourteen days after the first, and seven days after the second, dose of vaccine A in the arm. Paralysis began in the left arm three days later, and complete recovery was questionable at the last report.

12. A youth, aged twenty years, had his onset of poliomyelitis fourteen days after the first and only dose of vaccine B in the arm. Paralysis began in the arm two days later, and death occurred after an illness of four days. From this case poliomyelitis was transmitted to monkeys by Doctor Kessel.

Paralytic poliomyelitis was not epidemic in any of the localities at the time of the occurrence of these cases if these cases themselves are not included in the count. During the heaviest incidence of poliomyelitis in the community with the highest reported incidence, the expectation of paralytic poliomyelitis among those vaccinated within three weeks following vaccination, judging by its occurrence by age groups in the community at large, was less than one-tenth of a case, yet a case occurred. At the other periods and in the other localities cited, the chance of a case occurring among the vaccinated was much less, yet in each instance cases occurred. The likelihood of the whole series of cases having occurred through natural causes is extremely small. In none of the cases was exposure to infection outside its own area known to be of special significance.

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† See California letters in this issue, page 137.

* Medical Director, United States Public Health Service, Washington, D. C.

It is believed that to many physicians this series of cases, following by intervals of from six to fourteen days the injection of one or the other of two different vaccines, renders undesirable the further use of poliomyelitis virus for human vaccination at present.

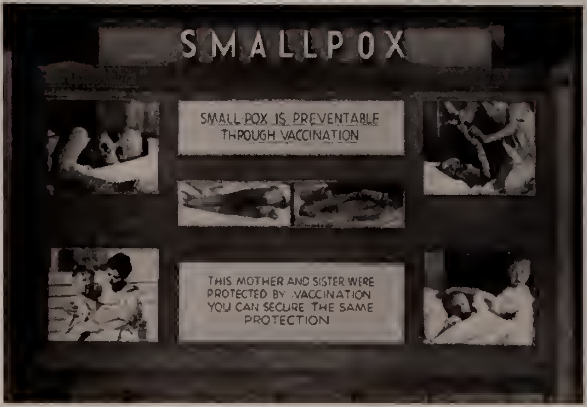
In every case in which the sequence is known, the level of the spinal cord first affected corresponded to the extremity in which the injection was made, paralysis beginning either in the same limb or in the contralateral limb. This is strong support to other evidence that the virus of poliomyelitis is transmitted along nerve fibers, since neither blood nor lymph streams would afford direct access from one extremity to the corresponding cord level. The remarkably high fatality in this series of cases was perhaps due to the part of the cord primarily infected being close to the nuclei corresponding to the muscles of respiration. The possibility is to be considered that a strain of poliomyelitis that has been subjected to prolonged monkey passage, with rather short incubation periods, is unusually virulent to man when administered by the subcutaneous or intracutaneous route. Though in a few of these cases it is possible or even probable that there was another intercurrent illness in addition to poliomyelitis, in general the preparalytic symptoms were such as would be expected in poliomyelitis naturally acquired.

In forming a judgment as to the applicability of a poliomyelitis vaccine, the not inconsiderable local and general reactions following its use need to be taken into account.[1] It is also noteworthy that the appearance of neutralizing antibodies in the blood after the injection of poliomyelitis virus is very uncertain evidence of parallel immunity to the natural disease.[2]

Although any one of these cases may have been entirely unconnected with the vaccine, the implication of the series as a whole is clear.—*Journal of the American Medical Association.* December 28, 1935.

C. M. A. HEALTH INSTITUTES

Members, by these pictures, will be able to visualize the nature and extent of the Public Health Institutes that are sponsored by our Association. Their purpose being the education of the public in matters pertaining to public health and medical care for the purpose of building sound public opinion in regard to public and private health.


SMALLPOX
SMALL-POX IS PREVENTABLE THROUGH VACCINATION
THIS MOTHER AND SISTER WERE PROTECTED BY VACCINATION YOU CAN SECURE THE SAME PROTECTION

Smallpox Exhibit

It is contemplated to conduct a series of these institutes throughout the State through county societies and auxiliaries. Details outlining the preliminary work to conduct an institute have been mailed to every county secretary. Further details may be obtained from the State Director of Public Relations.

Floor Arrangement

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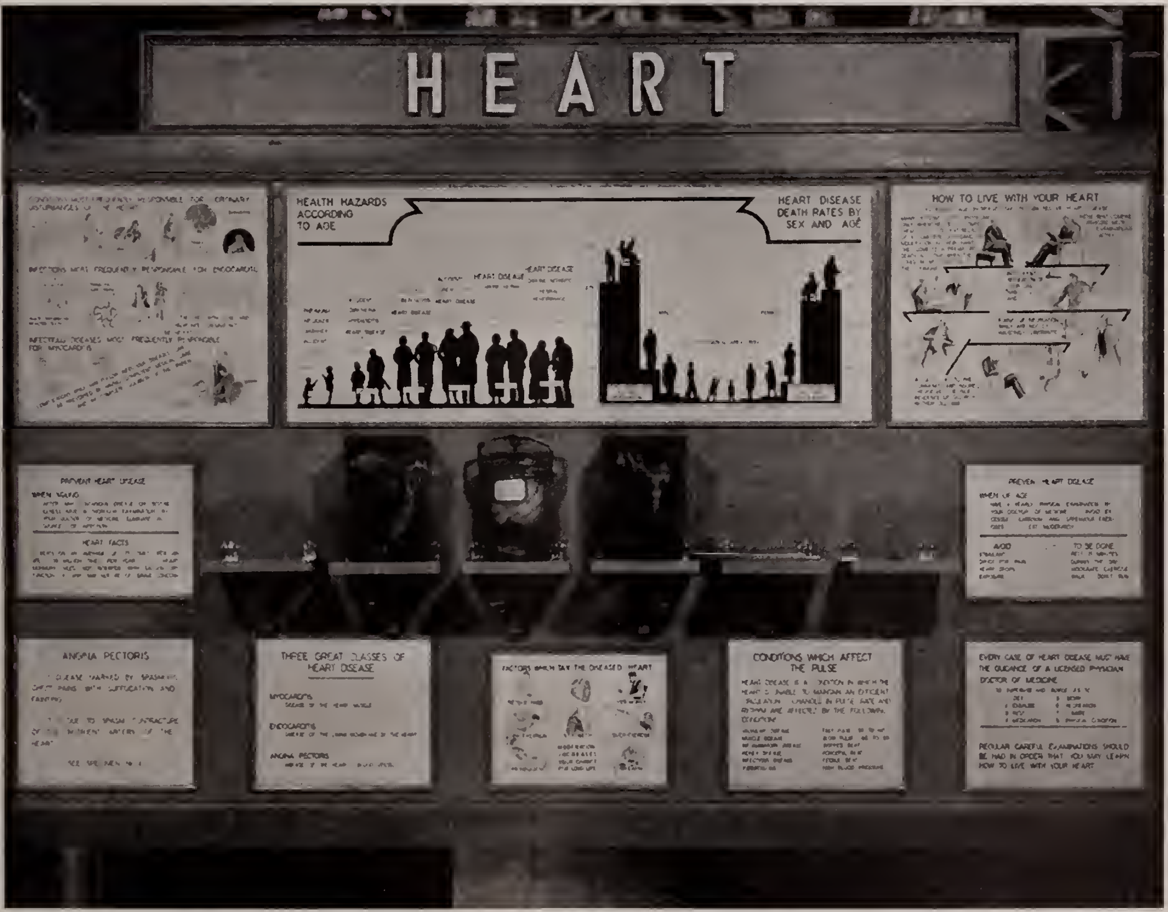
[1] Gilliam, A. G., and Onstott, R. H.: Results of Field Studies with Poliomyelitis Vaccine, read before the Southern Branch, American Public Health Association, St. Louis, November 19, 1935, Am. J. Pub. Health, to be published.

[2] See also Schultz, E. W., and Gebhardt, L. P.: On the Problem of Immunization Against Poliomyelitis, Calif. and West. Med., 43:112 (Aug.), 1935.

This young athlete looks healthy
TUBERCULOSIS
TUBERCULOSIS
The appearance of radiant health
SYMPTOMS
BEST TREATMENT
But he has

Tuberculosis Exhibit


HEART
HEALTH HAZARDS ACCORDING TO AGE
HEART DISEASE DEATH RATES BY SEX AND AGE
HOW TO LIVE WITH YOUR HEART
PREVENT HEART DISEASE
HEART FACTS
ANGINA PECTORIS
THREE GREAT CLASSES OF HEART DISEASE
MYOCARDITIS
ENDOCARDITIS
ANGINA PECTORIS
FACTORS WHICH TAX THE DISEASED HEART
CONDITIONS WHICH AFFECT THE PULSE
AVOID
TO BE DONE
EVERY CASE OF HEART DISEASE MUST HAVE THE GUIDANCE OF A LICENSED PHYSICIAN DOCTOR OF MEDICINE
REGULAR CAREFUL EXAMINATIONS SHOULD BE HAD IN ORDER THAT YOU MAY LEARN HOW TO LIVE WITH YOUR HEART

"How to Live with Your Heart"

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. LX, No. 2, February, 1911

From Some Editorial Notes:

The Present Legislature.—At the time of writing, no bills harmfully modifying our Medical Practice Act or seriously menacing public health have been introduced, though, if one may judge at all by the history of past legislatures, some bills of this class will be introduced ere long. . . .

* * *

Public Health.—The President, Mr. Taft, in his message to the Congress, makes the following statement in regard to public health legislation: "In my message of last year I recommended the creation of a Bureau of Health, in which should be embraced all those government agencies outside of the War and Navy departments which are now directed toward the preservation of public health or exercise functions germane to that subject. I renew this recommendation." That should silence a good deal of adverse talk; but it will not. . . .

* * *

Progress in Thoracic Surgery.—Differential pressure is still the all-absorbing problem of thoracic surgery. If this question is satisfactorily solved and a small, convenient, ever-ready apparatus evolved, the technique of surgery of the thoracic cavity will make rapid strides. . . .

* * *

Advertising Once More.—Why, do you suppose, any manufacturer pays this Society good money for space in your *Journal* in order to set forth the merits of his goods? Do you think it is just a way he has of getting rid of his superfluous money, or do you regard him as a peripatetic philanthropist? He is not. He has something that you may need, that it may be to your advantage to know about and that he hopes he may sell to you. It is distinctly to your advantage to read the advertising pages of your *Journal* and to see what things are there offered to you; it is a little difficult, in this world, at least, to know too much and you might as well know all you can—especially when it does not cost you any more. Everything advertised in this *Journal* is honest and exactly as represented. . . .

* * *

Curious Delusions.—It is singular how people who wish to sell things to eat or drink seem to have the delusion that the particular thing they wish to sell has most wonderful therapeutic value! Foodstuffs of the most simple composition become wonderful remedies in the expert hands of the advertisement writer; even water can become a cure-all. . . .

* * *

Medical Charity.—The vexing problem of the abuse of medical charity, or the "dispensary evil" has grown lustily for a generation. It became so bad in New York that in 1898 the Dispensary Law was passed and all dispensaries required to be licensed by the State Board of Charities. This has only partly corrected the evil. . . .

* * *

Marvelous Bacteriology.—During the past few years attempts have been made to bring about a closer relationship between the medical and pharmaceutical professions, with a fair measure of success, and it is not at all uncommon to see pharmacists and expert chemists contributing to our various medical journals. The dental

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† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

(Continued in Front Advertising Section, Page 13)

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"Theft of a medical calling kit and its contents, valued at $135, from an automobile owned by Dr. Merrill Hollingsworth of Santa Ana, was reported to the Santa Ana police yesterday. Included in the loot taken was some morphin and hypodermic needles." (Orange *News*, December 30, 1935.) Similar circumstances have been mentioned in previous news items, showing how sneak thieves are always watching an opportunity to rob a doctor's car.

"The Shasta County Board of Supervisors is debating the adoption of a resolution requiring the presence of a physician at every birth in the Shasta County Hospital. Such a requirement was recommended by the 1935 Shasta County grand jury in the final report filed yesterday. District Attorney Glenn D. Newton was instructed yesterday by the Board to investigate the legality of such a requirement." (Sacramento *Bee*, January 10, 1936.)

"Police Judge E. J. Tyrrell of Oakland yesterday continued the arraignment of Dr. J. Douglas Thompson, chiropractor and 'radio doctor' on a charge of falsely advertising a 'diagnostic fluid,' until Saturday morning, after Joe Brown, San Francisco attorney, notified the court that he had been retained by Thompson and would not be able to appear. Doctor Thompson, who is at liberty on $500 cash bail, was not in court. The chiropractor, who maintains offices at 330 Fifteenth Street, surrendered Wednesday on a warrant sworn to by C. B. Heiser, Pure Food and Drug Inspector for the State Department of Public Health, on charges that Doctor Thompson sold bottles of a preparation known as 'Dubla,' accompanied by pamphlets claiming that the fluid could be used by purchasers to detect acidity of the blood, as well as the presence of pleurisy, hay fever, bronchitis, asthma, and tuberculosis in their early stages. Conviction on the charge carries a maximum sentence of a $500 fine or six months in jail, or both." (San Francisco *Chronicle* (East Bay Edition), January 10, 1936.)

"Police Judge Oliver Youngs of Berkeley yesterday set January 16 for the preliminary examination of Dr. Samuel Twain, Berkeley physician and owner of a clinic at University Avenue and Grant Street, who pleaded not guilty to two counts of violating the State Narcotic Act. Doctor Twain appeared before Judge Youngs to answer charges brought by the State Narcotic Division of keeping no records of his prescriptions and of falsifying records to provide morphin in the name of his dead father-in-law." (San Francisco *Chronicle* (East Bay Edition), January 9, 1936.)

"Dr. John Colbert, an American resident in Tientsin, China, was arrested today by American authorities on a charge of attempting to poison his wife, Rueter's News Agency reported tonight from Tientsin. . . . After the preliminary hearing, Doctor Colbert was said to have been freed in the high bail of $25,000." (Press dispatch dated London, December 25, 1935, and printed in the San Francisco *Examiner*, December 26, 1935.) The records of the Board of Medical Examiners show Dr. John Colbert, a graduate of St. Louis University in 1903, was licensed in California in 1914.

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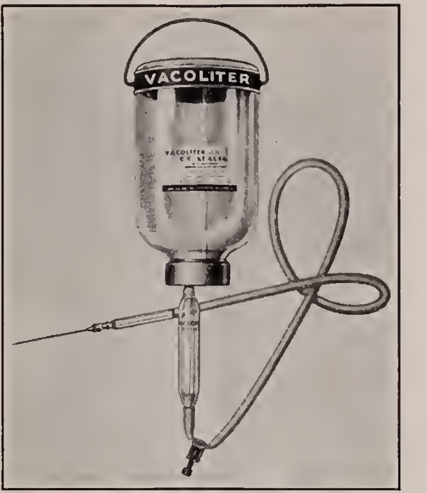
† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

(Continued in Front Advertising Section, Page 18)

ACACIA INTRAVENOUSLY

FOR THE TREATMENT OF ACUTE HEMORRHAGE OR SHOCK

• Intravenous acacia was introduced for the treatment of acute hemorrhage and shock during the World War. At the close of hostilities, some seventy-five liters per day of the six per cent solution in normal saline were being dispatched for use in field hospitals, from the British Base Hygiene Laboratory in Boulogne alone. After the Armistice, a conference of military surgeons at Boulogne agreed that no harmful effects were to be apprehended from the use of properly prepared acacia solution.



• During the post-war period, however, several reports appeared which attributed anaphylactic, hemolytic, and agglutinating properties to acacia. Despite continued publication of successful results, the opinion grew that administration of acacia was unsafe, and its use was widely discouraged.

• Experimental evidence of the past decade proves that previous unfavorable results were invariably due to improper preparation of the solution or to faulty technique. Particularly convincing are the published reports covering *more than three thousand injections of acacia,* with uniformly excellent results. The use of intravenous acacia has become so firmly established in some institutions, as to make its administration a matter of regular operating-room technique.

• The physiological effects following infusion of acacia into a patient suffering from shock or hemorrhage include improved respiratory function, sustained elevation of blood pressure, decreased coagulation time, and slightly increased blood viscosity. The patient's response is often almost "theatrical", and the improved condition is maintained while the normal fluid regulating mechanism resumes its functions.

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• The literature on intravenous acacia stresses the necessity for proper preparation of the solution. Baxter's Acacia is carefully prepared with the established Vacoliter technique and sterilized in the sealed Vacoliter. Before release to the profession, each lot must satisify the exacting requirements of the chemical, bacteriological, and biological tests applied to every Vacoliter solution — your final assurance of complete safety for your patients. For a condensed, informational review of the literature on acacia solution, send for the booklet, "ACACIA INTRAVENOUSLY".

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Corporate Practice of Dentistry Illegal in Illinois.—The Dr. Allison, Dentist, Inc., the plaintiff in this action, entered into a contract with the defendant dentist wherein the latter agreed, according to the record, "that he would not practice operative dentistry for a period of three years at any place within two miles of the corporate location." Shortly thereafter the dentist opened a dental office directly across the street from the corporate dental parlors and the corporation sought to enjoin the violation of the agreement. The trial court, in denying the injunction, held that the plaintiff corporation was illegally practicing dentistry, that the corporation's only damage would arise out of competition in a line of business which it could not lawfully follow, and that therefore the petition of the corporation for an injunction did not appeal to the conscience of a court of equity. The corporation appealed to the Supreme Court of Illinois, contending that Section 18a of the Dental Practice Act, which prohibits corporations from practicing dentistry, was unconstitutional.

The Supreme Court, however, considered it to be unnecessary to pass on the constitutional question. The gist of the corporation's complaint, and its claim to equitable relief, was based on damages alleged to be feared through the defendant's competition in practicing dentistry. The practice of a profession, said the court, is everywhere held to be subjest to licensing and regulation under the police power and not subject to commercialization or exploitation. To practice a profession requires something more than the financial ability to hire competent persons to do the actual work. It can be done only by a duly qualified human being, and something more than mere knowledge or skill is essential to qualify. The qualifications include personal characteristics, such as honesty, guided by an upright conscience and a sense of loyalty to clients or patients, even to the extent of sacrificing pecuniary profit, if necessary. These requirements are spoken of generically as that good moral character which is a prerequisite to the licensing of any professional man. No corporation can qualify. It can have neither honesty nor conscience, and its loyalty must, in the very nature of its being, be yielded to its managing officers, its directors, and its stockholders. Its employees must owe their first allegiance to their corporate employer and cannot give the patient anything better than a secondary or divided loyalty.

The corporation, in its complaint, stated that the dentist had acquired secrets and confidential information in regard to the patrons of the corporation. It might be well inquired, said the court, in whom are these personal secrets imposed when a corporation attempts to practice? Can it be in the president alone, or is he under the corporate duty of disclosing them to his directors? And are the directors under the further corporate duty of disclosing them to stockholders? This very allegation of the corporation clearly demonstrates, the court said, the inappropriateness of any corporate attempt to practice one of the learned professions, involving personal and confidential relations, and most clearly demonstrates that such practice is not and cannot be open to commercial exploitation. The corporate charter of the corporation, the court said, did not and could not authorize it to practice dentistry, and the trial court quite properly dismissed the complaint. (*Dr. Allison, Dentist, Inc.,* v. *Allison* (Ill.), 196 N. E. 799.)—*Medico-Legal News Item.*

Malpractice: Facial Paralysis Following Mastoidectomy.—The physician-defendant, a specialist in diseases of the ear, nose and throat, punctured the plaintiff's ear drum, from which pus was immediately discharged. After observing the patient for four days, he made a diagnosis of mastoiditis and performed a mastoidectomy. The operation resulted in "a degree of facial paralysis." Another physician, who performed a second operation to alleviate the paralysis, found that the facial nerve had been injured. This operation improved the facial paralysis, but return of function was not complete. The plaintiff then sued the physician-defendant. From a judgment against him, the physician-defendant appealed to the Supreme Court of Washington.

The physician-defendant contended that he was not negligent in performing the operation, but that during

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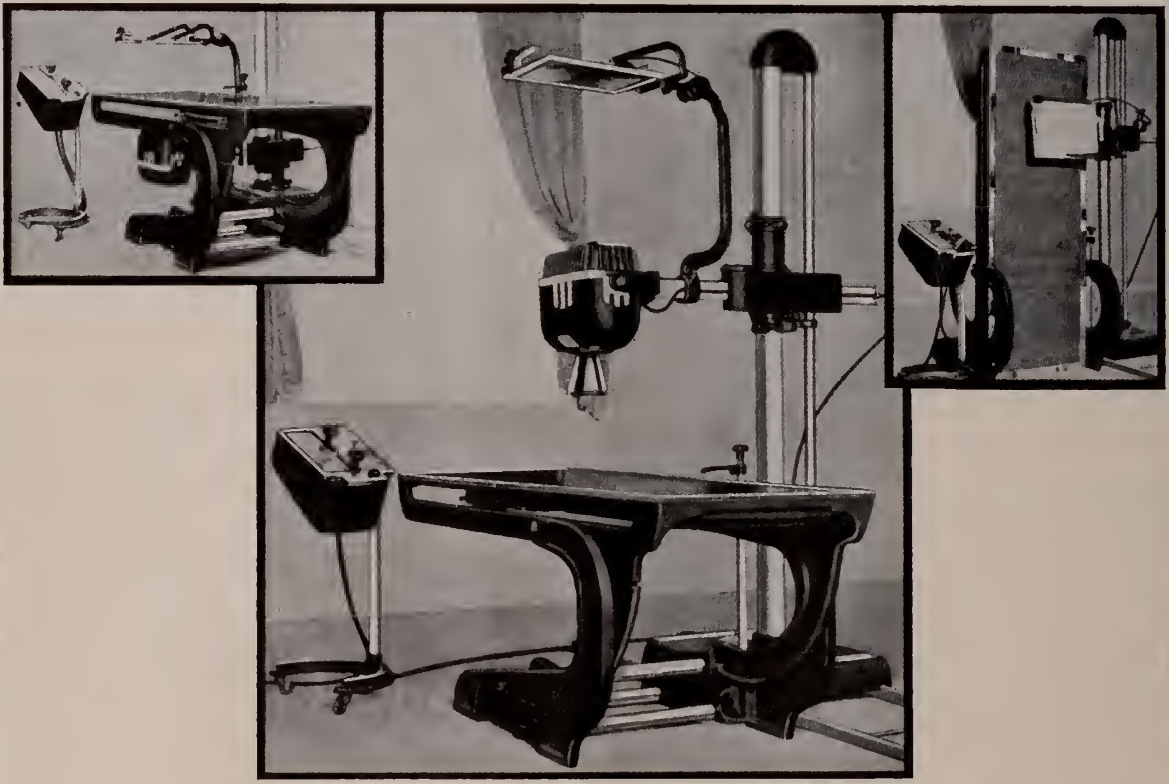

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the operation the facial nerve was exposed, as the result of necrosis of the protecting bone, and somehow subjected to injury. Such necrosis, he said, could set in within four days after the onset of infection. The plaintiff argued that infection had not existed for a sufficient time to cause such necrosis and that if the operation had been performed skillfully the facial nerve would not have been injured. The physician who performed the second operation testified that two weeks to a month in an average case of mastoiditis, and never less than eight days, was required for an infection in the middle ear to spread into the mastoid and produce the necrosis in question. The plaintiff testified that the physician-defendant told her that he had made a mistake and had cut the nerve, saying nothing at the time about any necrosis or crumbling of the bone. The physician-defendant denied having made this statement and testified, "I told her that during the operation I had accidentally uncovered the facial nerve, and that I did the best I could under the circumstances I had to deal with, and that was what had happened. . . ." There was sufficient evidence, said the Supreme Court, to justify the jury in finding that the time between the detection of infection and the operation was insufficient for such necrosis to have set in. It was not contended that the physician-defendant adopted an erroneous method of operating or that the operation which he performed was not proper and necessary. The contention was that the operation was performed in a negligent manner. The distinction between the two classes of cases involving negligence on the part of physicians is pointed out in *Swanson* v. *Hood,* 99 Wash. 506, 170 P. 135, wherein it was said:

> But there is an obvious distinction between a claim of negligence in the choice of methods of treatment and a charge of negligence in the actual performance of the work or treatment after such choice is made. As to the first, the charge is refuted as a matter of law by showing that a respectable minority of expert physicians approved of the method selected, thus taking the case from the jury. As to the second, a charge of negligent performance, where there is any evidence tending to show such negligence, the case is for the jury, as in other cases of negligence, whenever upon the evidence the minds of reasonable men might differ. . . .

The record in the present case, said the Supreme Court, contains substantial evidence to support the jury's finding that the operation was negligently performed. There was no testimony to the effect that in operations similar to the one here involved the facial nerve is frequently injured. The evidence went no further than to indicate that such injuries occasionally occur. The plaintiff was not required to prove negligence by direct and positive evidence; it was only necessary that a chain of circumstances be established from which negligence was reasonably and naturally inferable. The jury had a right to take into consideration the fact that a second operation was necessary in order to correct the condition resulting from the first operation.

The Supreme Court could find no reversible error and, therefore, affirmed the judgment of the trial court for the plaintiff. (*Marlowe* v. *Patrick* (Wash.), 44 P. (2d) 776.) *Medico-Legal News Item.*

We wish to know what is going on; what the progress of science is; what leaders of the nations are doing; how our civilization is faring; and whether our community is what it should be. Though the matters to be dealt with are multifarious, one thing comforts us: only a people rich in culture has a wealth of problems. Nations that have slipped backward have been governed too little by what they knew or might have known, too much by indifference or superstition. Great changes swept over them before they realized what was happening. We wish to be alive to our country's needs and play a part in meeting them. We aspire to be free, realizing that freedom in our world of dense population is no longer a by-product of vacant lands, but a cultural achievement.—Leon J. Richardson.

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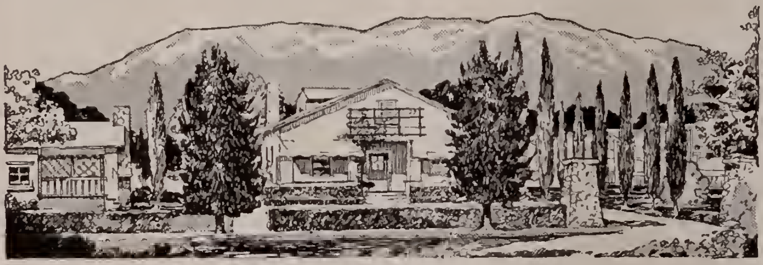

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The Birth Control Controversy.—At present there is a controversy on the subject of birth control. On the whole the medical profession is in favor of birth control under certain circumstances, while it is opposed by certain ecclesiastics, on religious or moral grounds, and is entirely condemned by the Roman Church. At the Hunterian Society a debate was opened by the bishop of St. Albans, who entirely opposed birth control by artificial means. He had a strong intuitive sense that the whole thing was wrong and degrading, and in all esthetic and moral judgments the intuitive sense was not to be disregarded. Birth control was a deliberate frustration of the biologic ends of nature. Self-control he exalted as the thing which differentiated man from the animal.

Dr. C. P. Blacker, secretary of the Eugenics Society, said that the central question was whether it was possible for the married to regulate an appropriate number of births by the method of abstinence. He had been impressed lately by a number of books from Catholic sources advocating the so-called safe period. It was clear that Catholic physicians and priests were finding difficulties with their patients and penitents in this regard.

Sir Walter Langdon Brown, emeritus professor of physics in the University of Cambridge, said that the world was overshadowed by war, the aggressor being a country trying to find room for its teeming population, and yet in the criminal code of the same country birth control was ranked side by side with banditry. Birth control was directed to life and health, so that a woman would be able to space her family at the proper intervals and give each member a chance of being properly brought up. He believed that celibacy was possible to many and that marriage was the crown of human happiness, but that married celibacy was the worst thing possible. He preferred birth control as an alternative to those things which in the old days were regarded as of divine ordinance—war, pestilence, and famine.

In the general discussion a young physician said that if physicians did not believe in birth control because it was an interference with nature, logically they ought not to try to prevent or postpone death, for this also was an interference with nature.—*London News Letter.*

Sterile Marriages.—In view of the attitude of the present German Government in promoting an increase of the population, the question of sterile marriages is fraught with interest. Professor Eymer, ordinarius in gynecology at the University of Munich, who discussed this subject before the Munich Medical Society, stressed most emphatically that any attempt to discover the cause in a given case presupposes a careful examination of both partners even though the wife should present pronounced abnormalities.

Causes of marital sterility traceable to the wife may be based on anomalies of any of the many portions of the genital canal. In addition, there are general, and even psychic, causes of sterility. Of less importance are inflammations of the vulva, tumor formations of the labia majora and the labia minora, and a rigid hymen. Vaginism as a psychic reflex requires mental treatment. There is no doubt that retroflexion of the uterus may cause sterility. Considerable importance attaches to the observation that after long-continued use of inserts and anti-conceptional lavages, and also after induced abortion, sterility often intervenes. Nonpatency of the fallopian tube is an important factor from a purely numerical point of view. In bilateral closure of the tubes the prospects of successful treatment are very poor. Roentgen stimulative treatment is absolutely rejected by reason of the undesired effects often observed and because of possible injury to the germinal plasma. Sterility associated with disturbances of other endosecretory glands is always traceable to ovarian dysfunction accompanying these glandular disturbances. Of especial importance in this connection are the hypophyseal disorders. It is the opinion of Professor Eymer that occasionally the causes of sterility lie in the general mode of living or in the misuse of medicines and luxury articles (tobacco).—*Berlin News Letter.*

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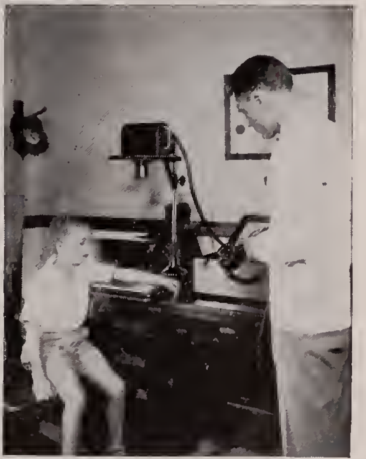

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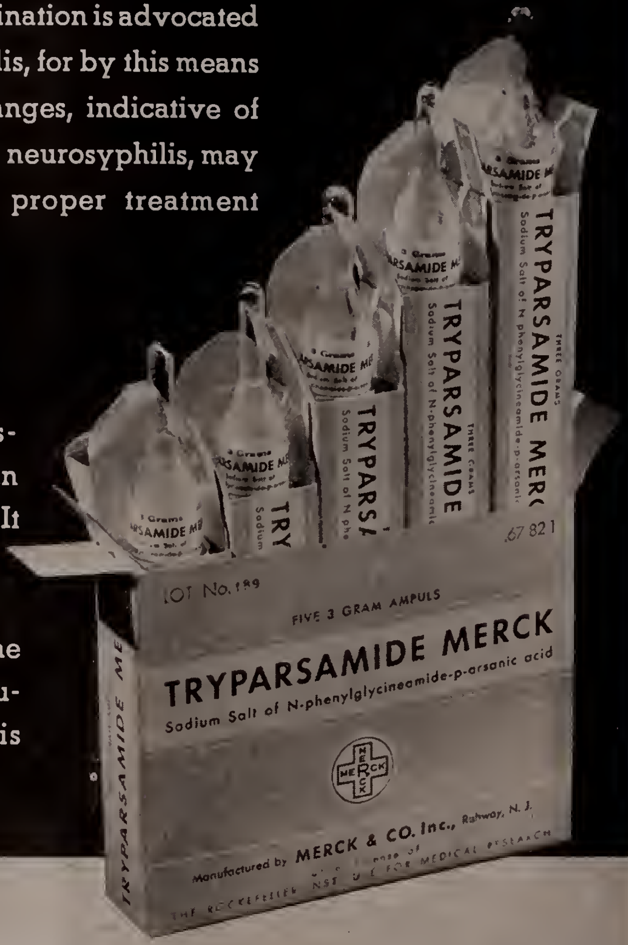
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Road Accidents and Lighting.—To what extent motor accidents are due to poor road lighting is not easily ascertained, but statistics suggesting that it is the cause of many injuries were given in an address by Mr. E. C. Lennox, vice-president of the Association of Public Lighting Engineers, at the Public Works, Roads and Transport Congress, held in London. The density of traffic on the roads, he said, was not only steadily increasing, but steadily increasing during the hours of darkness. Heavy goods traffic was being carried to an ever greater extent on the roads at night, and this, with the enormous development of omnibus service, has contributed to make us "an eighteen-hour nation." Statistics showed that the accident hazard at night was several times greater than by day. He estimated that if the main roads were efficiently lighted, making the use of motor headlights unnecessary, accidents would be reduced by 10 per cent and the increased cost would be counterbalanced by the reduced cost of what the community paid for accidents through insurance companies alone. More than 46 per cent of accidents occurred during the winter months, although traffic was then less heavy than in the summer. In the winter 52 per cent of accidents occurred during the dark hours and in summer more than 20 per cent, when there was least traffic. In a whole year one-third of the accidents happened during the dark hours. During the two hours of the session of the congress, on the average two persons would be killed and sixty-two injured. If the session had been between the hours of 5 and 7 in the evening, in the dark when traffic would be less, the figures would have been 4.3 killed and 132 injured. These figures could easily be reduced by better public lighting.

In the discussion that followed, it was stated that experience at Lewisham (South London) showed that better lighting led to greater speed of motorists and that it was a question how far improved lighting tended toward safety. A county surveyor said that the present system of lighting was detrimental to good driving, because lights placed up in the air, particularly on a gradient, had a dazzling effect on drivers. It might be possible to floodlight the highways in such a way that the light itself would not be visible.—*London News Letter.*

Estimation of Bacterial Content of Mouth.—With the aim of separating the clumps of bacteria, due to mucin and epithelial cells in the saliva and to the thread forms which entangle masses of bacteria, Crowley and Rickert employed a method similar to that used by Breed and Brew (1933) for making direct bacterial counts of milk, with the exception that an atomizer was used to break up the larger masses and a very dilute sodium hydroxid solution was used as a diluent to dissolve the mucin. They found that the difference in counts made by this method is 13 per cent. The number of bacteria in sprayed washings increased appreciably (at least 36 per cent) over the unsprayed material. Four hundred normal sodium hydroxid treated washings gave a better distribution of bacteria in a smear without, however, materially increasing the count. Counts taken at different times of the day and on different days varied greatly in the same individual. No correlation was noted between counts made by the method described and the "diurnal tide" of Feirer and Leonard.—*Journal of Bacteriology.*

Loss of Weight During Muscular Work.—Hovland recorded the loss of weight during relaxation and during the performance of finger oscillation following the ingestion of large and small meals. Ten subjects were used four days each. Efficiency, judged by the increment of loss of weight during work as compared with the loss during relaxation, appears better after a light lunch, the advantage being greatest in the earlier part of the afternoon, immediately after eating. Maximal inefficiency, from the standpoint of the expenditure of energy, is found in the late afternoon, about four hours after eating.—*American Journal of Physiology.*

●

CANNED FOODS AND THE PUBLIC HEALTH

I. The "Ptomaines"

● Many requests received for further information on canned foods have inquired as to some of the public health aspects of this class of foods. We appreciate the frank interest of our readers in this subject about which so much misinformation exists. We are glad, therefore, to devote this discussion, as well as subsequent ones, to the most popular of the lay misconceptions concerning the wholesomeness of commercially canned foods.

Some laymen hold the belief that canned foods, in some mysterious manner, develop "deadly ptomaines" within the can and hence the consumer of such foods stands in danger of "ptomaine poisoning". In the light of modern knowledge, this belief is ludicrous; it probably had its origin in the old "ptomaine theory" of food poisoning, now so thoroughly discredited by modern medical authorities (1).

Between the years 1870 and 1880, a large number of substances were obtained from protein material which had undergone bacterial putrefaction. These substances were aptly called "ptomaines", from the Greek "ptoma" or "dead body". Toxicologists of the day ascribed marked toxic properties to the new found ptomaines, chiefly by injection studies rather than by feeding tests. The science of bacteriology was then in its infancy—the true causes of food infection or intoxications were not known. Consequently, the discovery of ptomaines, with their alleged toxic properties, permitted the convenient diagnosis of "ptomaine poisoning" for all illnesses following the ingestion of foods. Today, we know that such illnesses usually result from the ingestion of food which had been infected by certain bacterial groups, and not from protein degeneration products such as ptomaines (2, 3).

One authority has stated that "ptomaine poisoning is a good term to forget" (4).

To this we might add that it would also be well to discard the old, unfounded belief that foods in the tin can develop substances hazardous to health.

Canned foods are merely selected foods which, after proper preparation, are sealed in hermetic tin containers and given a heat process calculated to destroy pathogenic and spoilage organisms which might be present on the raw foodstuff. The hermetic seal prevents future infection of the food by such organisms and insures its preservation and wholesomeness.

Such are the simple facts. The cooperation of the medical profession is earnestly solicited in combating the ludicrous, yet widespread, lay prejudice against commercially canned foods.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

(1) Journal American Medical Ass'n. 90,459 and 1573 (1928).

(2) Food-Borne Infections and Intoxications. F. W. Tanner, Twin City Pub. Co., Champaign, Ill., 1933.

(3) Food Poisoning and Food-Borne Infections. E. O. Jordan, University of Chicago Press, 2nd Ed., 1930.

(4) Preventive Medicine and Hygiene, M. J. Rosenau, Appleton-Century, New York, 5th Ed. 1927, p. 668.

This is the ninth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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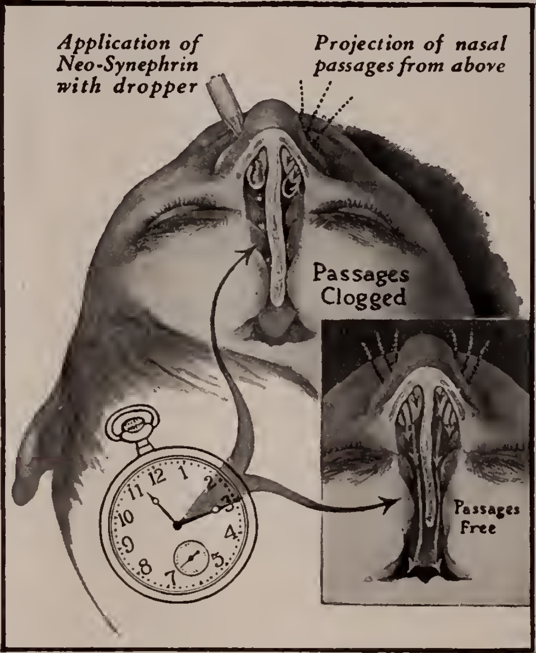
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Economic Difficulties of Hospital Physicians.—More than two thousand physicians give free medical care to the public in the hospitals of Buenos Aires, to which they go daily. As there are no restrictions as to the selection of patients, grave conditions, both for hospitals and for physicians, have originated. The number of patients attending free hospital clinics and dispensaries continually increases, but the hospital incomes do not increase and the means are insufficient to cope with the demands of the public. Some persons, either because they bring letters of recommendation or because they give small donations to the hospitals, are given preferential attention over the poor. The physicians' private practice decreases while their free work in the hospitals increases. Many physicians cannot now make a living, and for this reason the group of hospital physicians agreed to ask a small salary from the hospitals. The Partido Socialista presented a project in which a yearly allowance of 5,000,000 Argentine pesos (about $1,400,000) can be obtained from the Government. The attitude assumed by the physicians has gained publicity through the press and by lectures. The opinions of the physicians are conflicting and, while some believe that it is fair to obtain remuneration for their work, others prefer to have a complete readjustment in the present conditions of the profession, without accepting salaries, a fact that they believe may make the members of the profession subordinate employees in the category of proletarians or place them under the direction of political authorities.—*Buenos Aires News Letter.*

The Eradication of Rabies from England.—Rabies was eradicated from England about forty years ago by an order for the compulsory muzzling of dogs for a period. This prevented communication of the disease by any dog that happened to be in the incubation stage. The effect has been maintained by the quarantine of all imported dogs for a time which exceeds the incubation period. Though rabies is prevalent on the continent of Europe, these measures have kept England free from it, with one limited exception. In 1918 an outbreak occurred in Devon and Cornwall owing to an infected dog having been smuggled into the country. It took three years to weed out this outbreak. Since 1921 there has been no confirmed case of rabies among the dogs of this country, though since 1919 twelve cases have occurred in imported dogs while undergoing quarantine. The vigilance that is exercised with regard to the importation of dogs is shown by the recent case of a woman traveling from Berlin and landing at Croydon airport carrying a very small dog known as a German pinscher. The dog was placed in quarantine, but she was fined $10 because she had not obeyed the regulation which requires any person bringing a dog to obtain a landing license. The maximum penalty for the offense is $250, and she was let off with the much smaller fine because the magistrate was satisfied that she did not break the law deliberately. She knew that the dog would have to be quarantined and thought that this was all that was necessary.—*London News Letter.*

Emesis in Infants Due to Air Swallowing.—Lereboullet and his associates studied the vomitings that occur in infants from swallowing air. Roentgenologic examination has allowed several obscure points to be elucidated. The physiologic action of the pharynx in allowing much more air to be swallowed with liquids than with solids or semi-solids is the principal factor. The mode in which air acts is apparently by creating the intragastric pressure necessary to provoke gastric contraction. The rapidity of the distention plays an important part in producing this condition, which is thus shown to be physiologic rather than pathologic. Three measures of treatment are given. The process may be avoided by direct introduction, by means of a tube, of the liquid food into the stomach, thus avoiding the function of the pharynx. Increase in the consistency of the food does much to decrease the amount of air swallowed. Finally, taking the left lateral decubitus position immediately after eating favors the pyloric evacuation of the intragastric air and decreases the gastric distention.—*Presse Médicale.*

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The Shock Syndrome. — Moon attempts to correlate the contradictory phases of the shock syndrome, pointing out that it results whenever the volume of blood inadequately fills the vascular system. This may result from loss of blood or fluid, or from atony or dilatation of the vascular walls, especially the capillaries and venules. Combinations of these two factors are the rule. Circulatory failure of this type results, not from cardiac or vasomotor inefficiency, but from an inadequate return of venous blood from systemic areas. Increased concentration of the blood is a constant feature of shock. This is of clinical value both in recognizing the condition and in determining its degree. Shock produces characteristic changes demonstrable by postmortem examination. These consist of marked capillary and venous congestion of the viscera, edema of lungs and mucosae, petechial hemorrhages in serous and mucous surfaces, and effusion of fluid into serous cavities. Not only does shock occur following extensive surgery or trauma; it is seen in a wide variety of clinical conditions, including extensive burns, poisoning with various substances, metabolic intoxications, abdominal emergencies, and severe acute infections. Cerebral hemorrhage and other lesions of the central nervous system may terminate in shock, the mechanism of which is not evident. Perhaps prolonged vasomotor disturbance results in tissue asphyxia, which in turn causes capillary atony and permeability. Shock develops in varying degrees. Maximal degrees lead to death by circulatory failure. Lesser degrees may be followed by recovery or by death from pneumonia. Many cases of secondary pneumonia have their origin in this type of circulatory disturbance.—*Annals of Internal Medicine.*

Antivivisection Hospital Abandons Its Program.—For many years there has been an active antivivisection party in this country, which carries on propaganda by means of a journal, public meetings, and in other ways. One is the maintenance of the National Antivivisection Hospital at Battersea (in Southwest London). This is a general hospital with a proper staff of physicians, surgeons, and specialists. According to its constitution no

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vivisectionist was permitted to be a member of the board of the hospital or of its medical, surgical, nursing or administrative staff. No remedies that were the result of any vivisection or experiments on animals might be used there. Every person on the staff was required before joining to give a pledge against vivisection. It has now proved impossible to carry on the hospital under these conditions. In 1929 there was a large surplus of income over expenditure, but since then there has been a deficiency, particularly in the income from legacies. The hospital has had to close three wards of one hundred beds. An application was, therefore, made to obtain the sanction of the high court of justice for abandoning the antivivisection conditions of the foundation of the charity. An affidavit, made by the senior honorary surgeon, was read, to the effect that in view of the advances in general medical knowledge it was impossible to run the hospital on the present antivivisection lines. No other hospital in England was run on antivivisection lines. A scheme was submitted to the court for power to change the name of the hospital to the Battersea General Hospital and to declare that the observance of the principles and practice of antivivisection were no longer to bind the hospital. Mr. Justice Eve said that he must approve the scheme. Though personally he sympathized with the original objects and principles of the hospital, the time had come when they were no longer practicable. Possibly the diminution of the hospital's income was due to the fact that everybody had now to pay so much in taxation that little was left for charity.—*London News Letter.*

Health! thou most august of the blessed goddesses, with thee may I spend the remainder of my life, mayest thou benignly dwell with me; for if there be any pleasure to be derived from riches, or if there be any delight bestowed on men, or respite from pains, with thee, blessed health, all these flourish and beam effulgent like the spring arising from the graces; without thee no one is happy.—Ariphron.

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ROBERT A. PEERS, M. D., *Medical Director*
Colfax, California

Reprint from Chicago Daily Tribune, Monday, July 23, 1934

RESULT OF SURVEY OF NATURAL BIRTH CONTROL IS GIVEN

Experts Hold Ogino-Knaus Theory Is Sound

Results of a local study-survey undertaken by the Latz Foundation, a Chicago institution for the promotion of "the natural birth control method" through application of the so-called Ogino-Knaus theory or rhythm theory, were announced by the foundation yesterday. They indicate a favorable reaction to the subject from medical authorities who were cited.

The survey was limited, it was explained, to obtaining opinions on the theory from the heads of gynecological and obstetrical departments of five medical schools in Chicago and from the present and four former presidents of the Chicago Gynecological society. Opinions from a few specialists and general practitioners known to have had experience in the application of the Ogino-Knaus theory also were included.

Latz Explains Purpose

Application of this theory of "the rhythm of fertility and sterility in women," as against the use of contraceptives, is fostered by the Latz Foundation, according to its president, Dr. Leo J. Latz, "for spacing births where physiological or economic reasons warrant such action, and to assist in overcoming apparent inability to have children."

All of the physicians quoted in the results of the survey as released by the Latz Foundation agreed "that the fundamental basis of the Ogino-Knaus theory are scientifically sound." The Latz Foundation is supported by proceeds from the sale of a book, "The Rhythm," by Dr. Latz who is a member of the teaching staff of Loyola University Medical School.

The book is described on its title page as "a discussion of the physiological, practical and ethical aspects of the discoveries of Dr. K. Ogino (Japan) and H. Knaus (Austria) regarding the periods when conception is impossible and when possible."

Dr. Curtis Gives Consensus

After reviewing the findings of the survey, Dr. Arthur H. Curtis, head of the departments of gynecology and obstetrics at Northwestern University and Passavant Memorial Hospital, stated the consensus as follows:

"Apparently it has been demonstrated conclusively by Hartman (Dr. Carl G. Hartman, embryologist of the Carnegie Research Foundation) and others that the egg of the human female does not live longer than approximately a day after it becomes free unless pregnancy occurs.

"It is also now generally accepted that the spermatozoa (the male elements), contrary to former belief, do not live longer than a day, or two days at the most.

Results in Regular Cases

"Finally, we now may state that, in the case of women with regular 28 day cycles, ovulation generally occurs 12 to 16 days before the onset of the cycle.

"In the normal individuals with regular cycles the occurrence of pregnancy is highly improbable except during a few days which begin 16 days before the onset of the cycle.

"There remains little ground to question further the scientific accuracy of these fundamentals. There does remain much ground for investigation on the exceptions which may be expected to occur in the case of this biologic law like all others.

"Moreover, there is great need for exact clinical observation to chart the way for the successful practical application of what has been learned in this most important development in medical science."

Authorities whose opinion was sought in the survey included:

DR. N. SPROAT HEANEY, chairman, department of gynecology and obstetrics, Rush Medical School, chief gynecologist and obstetrician of the Presbyterian Hospital.

DR. FRED L. ADAIR, chairman, department of obstetrics and gynecology, University of Chicago, and chief of the gynecological service of the Chicago Lying-In Hospital.

DR. F. H. FALLS, head of the department of obstetrics and gynecology, University of Illinois Medical School and University of Illinois Research Hospital.

DR. HERBERT E. SCHMITZ, associate professor of gynecology, Loyola University Medical School, where his father, Dr. Henry Schmitz, now in Europe, head the gynecological department.

DR. IRVING F. STEIN, president, Chicago Gynecological Society.

DR. MARK. T. GOLDSTINE, chief of the medical and surgical staffs, Wesley Memorial Hospital, former president, Chicago Gynecological Society.

DR. ANDREW C. IVY, head of the department of physiology, Northwestern University.

DR. JOSEPH A. TOBIN, director of nursing education, De Paul University and the university's nine affiliated hospitals, and president of the Cosmas and Damian Associates, organization of Catholic physicians.

DR. PAUL E. LAWLER, professor of obstetrics, Loyola University Medical School.

DR. PHILIP M. LAW, neurologist and member of the staffs of the Cook County and University Hospitals.

DR. A. E. LUCKHARDT, member of the staff of the Grant Hospital.

"Two years ago I became convinced of the authenticity of the Ogino-Knaus method," Dr. Heaney is quoted in the foundation's survey. "As a result I began advising its use to patients who rightfully wished to avoid conception. During these two years in every single case where the prescribed method was followed not a single pregnancy has occurred."

Dr. Ivy, who has done research work under Dr. Hartman, who reached conclusions almost identical with those of Knaus through experiment on monkeys, according to the survey, said:

"Biology might be called a science of rhythms whether it has reference to humans or animals. The best available evidence now supports the rhythm of reproductivity in man as well as in other mammals. There is absolutely no question of the existence of an optimum time of the fertility in women and there lies the crux of this whole problem. Nevertheless, just as there are exceptions to every other biologic law, so there must be exceptions to this one."

Reprint from "Time"

RHYTHM BIRTH CONTROL

The Pope frowns on all forms of contraception because they prevent the birth of children, prime purpose of Roman Catholic matrimony. A thoroughgoing realist, the Pope at the same time knows that many loving Catholics who fear to have children defy his pontifical frown. Therefore he decided that it is morally right and proper for Catholic couples to utilize the wife's monthly rhythm of sterility and fertility as a natural method of contraception.

The Pope gave permission to do so in his 1930 Encyclical on Marriage, **Casti Connubii.** Said he: "Nor are those considered as acting against nature who in their married life use their right in the proper manner, although on account of natural reasons of time or of certain defects, new life cannot be brought forth."

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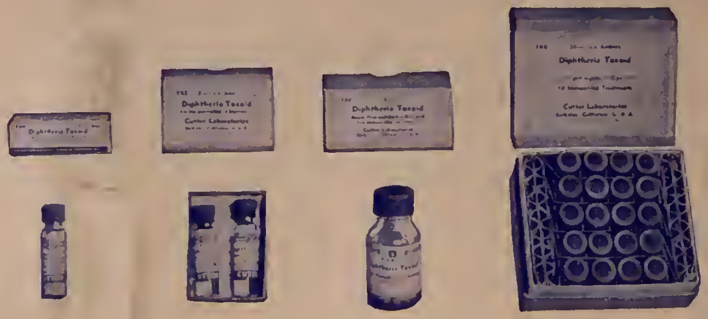

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Yours the task of educating the parents as to the necessity for such protection, and the performance of the actual inoculation as well. Yours, too, the problem of choosing the method of immunization, and the maker of the vaccine. You will undoubtedly choose toxoid, either the two dose, or the one dose alum precipitate. As for the maker, you could not find more potent products than those produced by Cutter; and your choice, as a western physician, of products produced here in the west could not be logically questioned.

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GREENS' EYE HOSPITAL

. . . for Consultation, Diagnosis, and Treatment of the Eye

THE HOSPITAL MAINTAINS

An outpatient eye department which functions daily from 9 a. m. to 6 p. m. A report of findings and recommendations for treatment is returned with patients who are referred for consultation.

An ear, nose and throat department conducted on the same basis as the eye department.

Emergency Eye Service

A twenty-four hour emergency eye service, including Sundays and holidays.

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OPHTHALMOLOGY

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Louis D. Green, M.D.
Martin I. Green, M.D.
Einar V. Blak, M.D.
Vincent V. Suglian, M.D.
David Kadesky, M.D.
Ernest Hessing, M.D.

OTOLARYNGOLOGY

Walter L. Allespach, M.D.
Ernst Wolfes, M.D.

Medical Director
WILLIAM R. JEPSON, M. D.

MEMBERSHIP ROSTER : C. M. A.

COUNTY SOCIETIES INDICATED BY KEY NUMBERS

This roster gives the list of members for the year 1935. Deceased members are indicated by *; resigned members by ¶; members transferred to other societies by §; new members who have been elected since January 1, 1936, by ‡.

KEY NUMBERS FOR COUNTY MEDICAL SOCIETIES

1. Alameda County.
2. Butte County.
3. Contra Costa County.
4. Fresno County.
5. Humboldt County.
6. Imperial County.
7. Kern County.
8. Kings County.
9. Lassen-Plumas-Modoc County.
10. Los Angeles County.
11. Marin County.
12. Mendocino-Lake County.
13. Merced County.
14. Monterey County.
15. Napa County.
16. Orange County.
17. Placer-El Dorado-Nevada-Sierra Counties.
18. Riverside County.
19. Sacramento County.
20. San Benito County.
21. San Bernardino County.
22. San Diego County.
23. San Francisco County.
24. San Joaquin County.
25. San Luis Obispo County.
26. San Mateo County.
27. Santa Barbara County.
28. Santa Clara County.
29. Santa Cruz County.
30. Shasta County.
31. Siskiyou County.
32. Solano County.
33. Sonoma County.
34. Stanislaus County.
35. Tehama County.
36. Tulare County.
37. Ventura County.
38. Yolo-Colusa-Glenn Counties.
39. Yuba-Sutter County.

COUNTY SOCIETY MEMBERSHIP TOTALS

(Year 1935)

Active Members in County Societies

Alameda County	459
Butte County	24
Contra Costa County	44
Fresno County	108
Humboldt County	28
Imperial County	24
Kern County	46
Kings County	18
Lassen-Plumas-Modoc County	11
Los Angeles County	2139
Marin County	39
Mendocino-Lake County	19
Merced County	23
Monterey County	46
Napa County	30
Orange County	109
Placer County	31
Riverside County	64
Sacramento County	144
San Benito County	5
San Bernardino County	128
San Diego County	236
San Francisco County	809
San Joaquin County	88
San Luis Obispo County	26
San Mateo County	51
Santa Barbara County	103
Santa Clara County	172
Santa Cruz County	29
Shasta County	11
Siskiyou County	20
Solano County	23
Sonoma County	53
Stanislaus County	41
Tehama County	11
Tulare County	37
Ventura County	33
Yolo-Colusa-Glenn County	25
Yuba-Sutter County	13

Active members	5320
Associate members	6
Retired members	59
Honorary members	12
Total members	5397

Thirty-seven members died during the year 1935.

Note.—The California Medical Association by-laws provide for an annual directory. Because every member receives the annual directory of the Board of Medical Examiners of the State of California, and in order to avoid the great cost of duplication of such a directory, the California Medical Association Council has decided to print in the official journal a simple roster of members, giving for each member the city or place of residence, with a key number to indicate the county medical society in which membership is held. For additional information concerning school of graduation, etc., the State Medical Board directory or the central office of the California Medical Association should be consulted. Errors in the list here printed should be promptly reported to the central office of the California Medical Association, Four Fifty Sutter, San Francisco.

I. ACTIVE MEMBERS

— A —

NAME	CITY	COUNTY SOCIETY NO.
Abbott, C. L.,	*Oakland*	1
Abbott, C. N.,	*Ontario*	21
Abbott, D. H.,	*Kanye, So. Africa*	16
Abbott, F. F.,	*Ontario*	21
Abbott, G. K.,	*Ukiah*	12
Abbott, L. C.,	*San Francisco*	23
Abbott, U. S.,	*Richmond*	3
Adun-Nur, A. S.,	*Los Angeles*	10
Abowitz, J.,	*Los Angeles*	10
Abraham, H.,	*Los Angeles*	10
Abraham, S. V.,	*Los Angeles*	10
Abraham, V. R.,	*Long Beach*	10
Abramson, M. J.,	*Los Angeles*	10
Achenbach, L. W.,	*Ventura*	37
Adams, B. A.,	*San Leandro*	1
Adams, B. O.,	*Riverside*	18
Adams, B. W.,	*Oakland*	1
Adams, E. L.,	*Galt*	19
Adams, H. G.,	*Fresno*	4
Adams, J. H.,	*Oakland*	1
Adams, L. E.,	*Escondido*	22
Adams, L. P.,	*Oakland*	1
Adams, W. C.,	*Oakland*	1
Adams, W. L.,	*Fresno*	4
Adelstein, L. J.,	*Los Angeles*	10
*Adler, H. M.,	*Berkeley*	1
Agmar, A. R.,	*San Francisco*	23
Ahlem, J. E.,	*Livermore*	1
Ahrens, C. L.,	*Artesia*	10
Aiken, S. D.,	*San Francisco*	22
Ainley, F. C.,	*Los Angeles*	10
Aird, J. L.,	*Manhattan Beach*	10
Aitken, H. C.,	*Berkeley*	1
Akesson, H. N.,	*Oakland*	1
Alanson, M. R.,	*San Francisco*	23
Albert, J. A.,	*Oroville*	34
‡Albert, J.,	*Oroville*	2
Albert, W.,	*Los Angeles*	10
Alberty, W. M.,	*East San Diego*	22
Albi, P.,	*San Francisco*	23
Alcazar, I.,	*Los Angeles*	10
Alcon, D. N.,	*Los Angeles*	10
Alden, B. F.,	*San Francisco*	23
Alden, E.,	*Los Angeles*	10
Alden, W. C.,	*Pasadena*	10
Alderson, H. E.,	*San Francisco*	23
Alderson, V. G.,	*Oakland*	1
Aldrich, W. S.,	*Los Angeles*	10
Alesen, L. A.,	*Los Angeles*	10
Alexander, A. A.,	*Oakland*	1
Alexander, E.,	*Oakdale*	34
Alexander, E. W.,	*San Francisco*	23
Alexander, J. H.,	*Chico*	2
Allan, J. T. M.,	*Los Angeles*	10
Allen, A.,	*San Pedro*	10
Allen, A. B.,	*Los Angeles*	10
Allen, C. L.,	*Los Angeles*	10
Allen, C. S.,	*Los Angeles*	10
Allen, D. M.,	*Oakland*	1
Allen, E. G.,	*Patterson*	34
Allen, H. W.,	*San Francisco*	23
Allen, J.,	*Raymond*	4
Allen, J. R.,	*Los Angeles*	10
Allen, M. R.,	*Fairfax*	11
Allen, O. K.,	*San Francisco*	23
Allen, P. K.,	*San Diego*	22
Allen, R. E.,	*Reedley*	4
Allen, R. W.,	*Huntington Park*	10
Allen, W. B.,	*Oakland*	1
Aller, D. I.,	*Fresno*	4
Allington, H. V.,	*Oakland*	1
‡Allison, B. S.,	*Long Beach*	10
Allison, C. N.,	*San Diego*	22
Allum, A. W.,	*Glendale*	10
Alsberge, E. W.,	*Glendale*	10
Alter, S. M.,	*Los Angeles*	10
Althausen, T. L.,	*San Francisco*	23
Alvarez, L. F.,	*Los Angeles*	10
Alward, H. C.,	*Los Angeles*	10
Amaral, E. A.,	*San Jose*	28
Ambrose, C. S.,	*Los Angeles*	10
Ames, E. W.,	*Los Angeles*	10
Ammann, F. X., Jr.,	*Los Angeles*	10
Amsbaugh, A. E.,	*San Francisco*	23
Amyes, H. W.,	*Huntington Park*	10
Anderson, A. C.,	*Petaluma*	33
Anderson, A. E.,	*Fresno*	4
Anderson, A. V.,	*Pasadena*	10
Anderson, B. N.,	*Burbank*	10
Anderson, C. M.,	*Hermosa Beach*	10
Anderson, C. W.,	*Bishop*	10
Anderson, E. DeM.,	*San Luis Obispo*	25
Anderson, E. F.,	*San Francisco*	22
Anderson, E. L.,	*Los Angeles*	10
Anderson, F. N.,	*Los Angeles*	10
Anderson, F. R.,	*Campbell*	28
Anderson, H., Jr.,	*Los Angeles*	10
Anderson, H. C.,	*Pomona*	10
Anderson, H. E.,	*Culver City*	10
Anderson, H. H.,	*San Francisco*	23
Anderson, J. F.,	*Los Angeles*	10
Anderson, J. G.,	*Petaluma*	33
Anderson, N. P.,	*Los Angeles*	10
Anderson, O.,	*Santa Monica*	10
Anderson, S. B.,	*Burbank*	10
Anderson, S. C.,	*Glendale*	10
Anderson, W. N.,	*Los Angeles*	10
Anderton, H. S.,	*San Diego*	22
Andre, E. M.,	*Los Angeles*	10
‡Andrews, A. V.,	*Livingston*	13
Andrews, C. B.,	*Sonoma*	33
Andrews, H.,	*Los Angeles*	10
Andrews, H. F.,	*San Diego*	22
Andrews, H. J.,	*Hollywood*	10
Andrews, J. N.,	*Los Angeles*	10
Andrews, V. L.,	*Los Angeles*	10
Andrews, W. A.,	*Yucaipa*	21
Andrus, L. M.,	*King City*	14
Ankele, C. W.,	*Sacramento*	19
Annis, A. J.,	*Los Angeles*	10
Anthony, E. H.,	*Los Angeles*	10
Anton, F. L.,	*Los Angeles*	10
Appeldorn, H. H.,	*Oakland*	1
Apple, W. W.,	*El Centro*	6
Arbuthnot, R. E.,	*Glendale*	10
Arehart, A. A.,	*Monterey*	14
Arkush, A. S.,	*Santa Monica*	10
Armen, G. H.,	*Los Angeles*	10
Armitstead, R. B.,	*Ventura*	37

NAME	CITY	COUNTY SOCIETY NO.
Armstrong, E. L.,	*Los Angeles*	10
Armstrong, M. I.,	*Berkeley*	1
Arnett, L. A.,	*Waterford*	34
Arnold, F. L.,	*Long Beach*	10
Arnold, H. J.,	*San Jose*	28
Arnold, H. R.,	*San Francisco*	23
Arnold, M. H.,	*San Diego*	22
Arnold, W. F.,	*Long Beach*	10
Arnot, P. H.,	*San Francisco*	23
Arnov, B.,	*Los Angeles*	10
Arthurs, E.,	*San Francisco*	22
Ash, R. L.,	*San Francisco*	23
Ashcroft, F. E.,	*Chula Vista*	20
Ashley, K. C.,	*Huntington Park*	10
Ashley, N. N.,	*Oakland*	1
Ashley, R. E.,	*San Francisco*	23
Askey, E. V.,	*Los Angeles*	10
Askey, J. M.,	*Los Angeles*	10
Atkinson, C. E.,	*Banning*	18
Atkinson, D. W.,	*San Francisco*	23
Atkinson, R. C.,	*Colfax*	17
Atsatt, R. F.,	*Santa Barbara*	27
Atteberry, C. V.,	*Inglewood*	10
Attwood, W. G.,	*Los Angeles*	10
Atwood, A. C.,	*Chowchilla*	13
Atwood, H. A.,	*Riverside*	18
Audrain, L. C.,	*Los Angeles*	10
Austin, L. C.,	*Los Angeles*	10
Austin, R. E.,	*Coronado*	22
Austin, T. C.,	*Pasadena*	10
Avery, J. W.,	*Hollywood*	10
Avery, W. J.,	*Fresno*	4
Axline, J. T.,	*North Hollywood*	10
Ayer, E. W.,	*Oakland*	1
Ayers, T. F.,	*San Francisco*	23
Ayres, S., Jr.,	*Los Angeles*	10
Ayres, W.,	*Los Angeles*	10
Azevedo, J. A.,	*Hayward*	1
Azevedo, J. L., Jr.,	*Modesto*	34
Azevedo, M. L.,	*Sacramento*	19

— B —

NAME	CITY	COUNTY SOCIETY NO.
Babcock, D. W.,	*Placerville*	19
Babcock, E. S., Jr.,	*Sacramento*	19
Babcock, J. W.,	*Placerville*	19
Babcock, L. G.,	*Vernon*	10
Babcock, R. A.,	*Willits*	12
Babienco, A. T.,	*San Diego*	22
Babington, S. H.,	*Berkeley*	1
Baccus, C. F.,	*Woodstock, Ill.*	10
Bachelder, B. B.,	*Sebastopol*	33
Bacher, J. A.,	*San Francisco*	23
Bachhuber, C. A.,	*Los Angeles*	10
Bachmann, G. W.,	*Santa Monica*	10
Bacigalupi, A. A. J.,	*San Francisco*	23
‡Bacigalupi, L. D.,	*San Francisco*	23
Bacon, L. C.,	*Beverly Hills*	10
Bacon, S. K.,	*Hollywood*	10
Baer, H.,	*Elsinore*	18
Baetz, W. G.,	*Huntington Park*	10
Bahrenburg, G. E.,	*Bakersfield*	7
Bailey, C. O.,	*Los Angeles*	10
Bailey, F. J.,	*Red Bluff*	35
Bailey, T. E.,	*San Francisco*	23
Bailey, W.,	*Los Angeles*	10
Bailey, W. E.,	*Los Angeles*	10
Baiocchi, A. J.,	*San Jose*	28
Baird, C.,	*San Bernardino*	21
Baird, C. G.,	*Santa Maria*	27
Baird, H. R.,	*Sacramento*	19
Baird, M. N.,	*Redondo Beach*	10
Bak, E. W.,	*Los Angeles*	10
Baker, C. D.,	*Los Angeles*	10
Baker, G. L.,	*San Francisco*	23
Baker, H. V.,	*Napa*	15
Baker, J. J.,	*West Los Angeles*	10
Baker, M. D.,	*San Jose*	28
Baker, R. W.,	*Los Angeles*	10
Baker, W. P.,	*Santa Ana*	16
Bakewell, B.,	*Santa Barbara*	27
Baldwin, A. K.,	*Long Beach*	10
Baldwin, A. L.,	*Healdsburg*	33
Baldwin, L. G.,	*Pasadena*	10
Baldwin, M. C.,	*Riverside*	18
Ball, C. D.,	*Santa Ana*	16
Ball, D. R.,	*Santa Ana*	16
Ball, F. I.,	*Los Angeles*	10
Ball, H. A.,	*San Diego*	22
Ball, J. D.,	*San Francisco*	23
Ball, J. D.,	*Santa Ana*	16
Ballard, C. H.,	*Santa Monica*	10
Ballard, S. E.,	*Long Beach*	10
Balyeat, F. S.,	*Los Angeles*	10
Bames, H. O.,	*Los Angeles*	10
Bancroft, I. R.,	*Los Angeles*	10
Bandelier, R. H.,	*Los Angeles*	10
Banks, A. E.,	*San Diego*	22
Banks, W. H.,	*San Francisco*	23
Barbanell, R. R.,	*Los Angeles*	10
Barber, E. M.,	*Oakland*	1
Barber, P. S.,	*Porterville*	36
Barbour, N. P.,	*Stockton*	24
Barclay, H. A.,	*San Diego*	22
Bardill, J. W.,	*Ventura*	37
*Barkan, A.,	*Zurich, Switzerland*	23
Barkan, H.,	*San Francisco*	23
Barkan, O.,	*San Francisco*	23
‡Barker, H. E.,	*Ventura*	27
Barker, J. L.,	*Brawley*	6
Barlow, T. H.,	*Long Beach*	10
Barlow, W. J.,	*Los Angeles*	10
Barmore, M. G.,	*Calexico*	6
Barnard, F. S.,	*Los Angeles*	10
Barnard, H. D.,	*Los Angeles*	10
Barnard, H. D.,	*Los Angeles*	10
Barnard, L. B.,	*Oakland*	1
Barnes, J. W.,	*Stockton*	24
Barnes, L. B.,	*Newcastle*	17
Barnes, P. D.,	*Loomis*	17
Barnes, R. W.,	*Los Angeles*	10
Barnes, S. D.,	*Los Angeles*	10
Barnes, W. H.,	*Chico*	2
Barnett, C. W.,	*San Francisco*	23
Barnett, E. D.,	*Santa Rosa*	33
Barnett, G. D.,	*San Francisco*	28
Barnhart, W.,	*Los Angeles*	10
Baron, P. P.,	*Alameda*	1
Barr, A. L.,	*San Diego*	22
Barr, W. T.,	*Fresno*	4
Barrett, G. M.,	*San Francisco*	23
Barrette, L. C.,	*Sacramento*	19
‡Barriette, P. C.,	*San Jose*	28
Barron, H. C., Jr.,	*Escondido*	22
Barron, H. M.,	*Los Angeles*	10
Barrow, J. V.,	*Los Angeles*	10
Barrow, W. H.,	*San Diego*	22
Barry, G. L.,	*San Jose*	28
Bartle, I. B.,	*San Luis Obispo*	25
Bartholomew, J. Y.,	*San Francisco*	23
Bartholomew, T. E.,	*Calexico*	6
Bartlett, C. L.,	*Pasadena*	10
Bartlett, E. I.,	*San Francisco*	23
Barton, E. W.,	*Alhambra*	10
Bascom, F. S.,	*Oakland*	1
Bates, C. E. H.,	*San Francisco*	23
Bathurst, E. W.,	*Etna*	31
Baughman, W. H.,	*Oakland*	1
Baumgaertner, O.,	*Los Angeles*	10
Baumgartner, C. J.,	*Los Angeles*	10
Bautista, M. D.,	*Stockton*	24
Baxter, C. P.,	*San Diego*	22
*Baxter, D. E.,	*Glendale*	10
Baxter, F. S.,	*Oakland*	1
Bay, M. W.,	*Los Angeles*	10
Bay, S. G.,	*Los Angeles*	10
Bayer, L. M.,	*San Francisco*	23
Bayley, W. A.,	*Los Angeles*	10
Baylis, J. N.,	*San Bernardino*	21
Beach, E. W.,	*Sacramento*	19
Beall, M. E.,	*Patton*	21
Bear, N. K.,	*Riverside*	18
Beard, E. A.,	*Inglewood*	10
Beard, J. L.,	*Martinez*	3
Beardslee, A.,	*San Francisco*	23
Beardsley, J. R.,	*San Diego*	22
Beasley, E. M.,	*Santa Ana*	16
Beasley, H. E.,	*Glendale*	10
Beattie, H.,	*Elk Grove*	19
Beattie, J. I.,	*San Jose*	28
Beattie, W. A.,	*Sacramento*	19
Beatty, H. J.,	*Clinton, New Jersey*	10
Beatty, J. D.,	*Los Angeles*	10
Beauchamp, H. H.,	*Sacramento*	19
Beaudoux, H. A.,	*Oakland*	1
Beaver, H. J.,	*Palo Alto*	28
Beaver, M. G.,	*Redlands*	21
‡Beck, G. H.,	*Glendale*	10
Beck, H. H.,	*Corning*	35
Beck, H. R.,	*Los Angeles*	10
Beck, J. A.,	*Salinas*	14
Beck, J. E.,	*Tulare*	36
Becka, S. J.,	*Los Angeles*	10
Becker, G. H.,	*San Francisco*	23
Becker, H. F.,	*Los Angeles*	10
Becker, W. A.,	*Los Angeles*	10
Becker, W. N.,	*Sacramento*	19
Bedri, M. R.,	*Los Angeles*	10
Beebe, J. L.,	*Anaheim*	16
Beebe, L. J.,	*Santa Maria*	27
Beede, A. H.,	*Walnut Creek*	3
Beekler, A. M.,	*Santa Maria*	27
Beem, M. D.,	*West Los Angeles*	10
Beerman, H. M.,	*Los Angeles*	10
Beerman, W. F.,	*San Francisco*	23
Beeson, H. O.,	*San Bernardino*	21
Behne, K. F.,	*Los Angeles*	10
Behneman, H. M. F.,	*San Francisco*	23
Behrendt, R. A.,	*Los Angeles*	10
Beigelman, M.,	*Los Angeles*	10
Belford, W. W.,	*San Diego*	22
Bell, H. G.,	*San Francisco*	23
Bell, H. W.,	*Bakersfield*	7
Bell, M. T.,	*Ventura*	37
Bell, T. F.,	*Oakland*	1
Bell, W. L.,	*Oakland*	1
Bellin, J. J.,	*Los Angeles*	10
Belove, B.,	*Los Angeles*	10
Belt, A. E.,	*Hollywood*	10
Belt, R. L.,	*Montrose*	10
Belyea, J. H.,	*Los Molinos*	35
Bender, W. L.,	*San Francisco*	23
Benner, E. A.,	*San Mateo*	26
Bennett, C. B.,	*Berkeley*	1
Bennett, C. L.,	*Los Angeles*	10
Bennett, C. R.,	*Pasadena*	10
Bennett, D. W.,	*San Francisco*	23
Bennett, E. L.,	*Fresno*	4
Bennett, E. S.,	*Olive View*	10
Bennett, L. B.,	*Los Angeles*	10
Bennett, L. C.,	*Los Angeles*	10
Bennett, M. C.,	*Berkeley*	1
Bennett, M. G. E.,	*El Monte*	10
Bennett, W. W.,	*Los Angeles*	10
Bennette, M. A.,	*San Bernardino*	21
Bennetts, F. A.,	*Los Angeles*	10
Benninger, C., Jr.,	*Oroville*	2
Benninghoven, C. D.,	*San Mateo*	26
Benson, C. B.,	*Modesto*	34
Benson, E. H., Jr.,	*Berkeley*	1
Benton, J. J.,	*Oakland*	1
Benveniste, I. E.,	*Moab, Utah*	10
Bepler, A. C.,	*San Francisco*	23
Berauer, J. M.,	*Los Angeles*	10
Berg, A.,	*San Francisco*	23
Berg, G. O.,	*Hollywood*	10
Berge, F. E.,	*Los Angeles*	10
Berger, A. A.,	*San Francisco*	23
Bergman, R. T.,	*Los Angeles*	10
Bergstrom, F. K.,	*Los Angeles*	10
Berkes, H. A.,	*Hollywood*	10
Berkley, H. K.,	*Los Angeles*	10
Berkove, S. E.,	*Oakland*	1
Berman, P.,	*Los Angeles*	10
Bernardini, C. V.,	*San Diego*	22
Berne, C. J.,	*Los Angeles*	10
Bernstein, A.,	*San Francisco*	23
Berry, B. S.,	*Santa Maria*	27
Bertero, J.,	*Santa Maria*	27
Bertola, M.,	*San Francisco*	23
Best, E. J.,	*San Francisco*	23
Bettercourt, M. F.,	*Watsonville*	29
Bettin, M. E.,	*Los Angeles*	10
Betts, I. H.,	*Visalia*	36
Bewley, M. H.,	*Los Angeles*	10
Bicknell, H. E.,	*Long Beach*	10
Bierman, J. M.,	*San Francisco*	23
Bieler, H. G.,	*Pasadena*	10
Bigby, M. H.,	*Whittier*	10
Bigler, A. B.,	*Chowchilla*	13
Bilker, D.,	*San Jose*	28
*Bill, P. A.,	*San Francisco*	23
Billingsley, U. C.,	*Hayward*	1
Bilon, L. V.,	*Los Angeles*	10
Bine, R.,	*San Francisco*	23
Bingaman, E. W.,	*Salinas*	14
Bingaman, W. H.,	*Salinas*	14
Bingham, E.,	*Riverside*	18
Binkley, R. W.,	*Selma*	4
Binkley, T.,	*Sacramento*	19
Bird, A. A.,	*Oakland*	1
Birkenstock, C. F.,	*San Diego*	22
Birnbaum, W. D.,	*San Francisco*	23
Bishop, C. R.,	*Long Beach*	10
Bishop, T. E.,	*San Diego*	22
Bishop, T. W.,	*S. Pasadena*	10
Bittner, C. L.,	*Sacramento*	19
Bittner, L. H.,	*Glendale*	10
Bittner, S. P.,	*Glendale*	10
Black, B. W.,	*Oakland*	1
Black, E. C.,	*San Diego*	22
Black, H.,	*Palo Alto*	28
Blackfield, H. M.,	*San Francisco*	23
‡Blackman, W. H.,	*El Centro*	6
Blackmun, E. L.,	*Stockton*	24
Blackshaw, J. B.,	*Sonoma*	33
Blahnik, K. B.,	*Pasadena*	10
Blaine, E. S.,	*Los Angeles*	10
Blaisdell, F. E., Jr.,	*Watsonville*	29
Blake, C. R.,	*Richmond*	3
*Blanchard, L. H.,	*Oakland*	1
Blanchard, T. L.,	*San Jose*	28
Bland, C.,	*Laguna Beach*	10
Blank, B.,	*Los Angeles*	10
Blatherwick, A. A.,	*Los Angeles*	10
Blatherwick, G. W.,	*Los Angeles*	10
Blecker, R. F.,	*Fresno*	4
Blemer, J. W.,	*Diablo*	3
Blevins, W. J.,	*Woodland*	38
Blinn, J. F.,	*Stockton*	24
Bliss, G. L.,	*Long Beach*	10
Bliss, W. P.,	*Pasadena*	10
Bloch, J. L.,	*San Pedro*	10
Block, C. A.,	*San Francisco*	23
Blodgett, H. H.,	*Beverly Hills*	10
Blodgett, W. LeR.,	*Calistoga*	15
Blond, H. H.,	*Los Angeles*	10
Blondin, E. A.,	*San Diego*	22
Blong, P. H.,	*Alhambra*	10

NAME	CITY	COUNTY SOCIETY NO.
Blood, J. N.,	*Redwood City*	26
Bloomfield, A. L.,	*San Francisco*	23
Blossom, H. S.,	*Patton*	21
Blum, S.,	*San Francisco*	23
Blumenthal, E. L.,	*Oakland*	1
Boardman, W. W.,	*San Francisco*	23
Bobbitt, A. N.,	*Pasadena*	10
Bobbitt, J. D.,	*San Diego*	22
Bock, C.,	*Los Angeles*	10
Bodman, E. W.,	*Pasadena*	10
Boe, M. R.,	*Alameda*	1
Boeck, W. C.,	*Los Angeles*	10
Boehm, C. A.,	*San Francisco*	23
Boehm, M.,	*Napa*	15
Boehmer, A. C.,	*Lodi*	24
Boericke, C. C.,	*Berkeley*	1
Boess, E. C.,	*Riverside*	18
Boetticher, E. O.,	*Los Angeles*	10
Boge, H. G. C.,	*Oakland*	1
Bogen, E.,	*Olive View*	10
Bogle, S. S.,	*Santa Rosa*	33
Boland, A. E.,	*Los Angeles*	10
Bolander, L. P.,	*Van Nuys*	10
Bolender, M. C.,	*Danville*	3
Boles, A.,	*Oakland*	1
Bolin, Z. E.,	*San Francisco*	23
Bolinger, H. J.,	*Lodi*	24
Boller, S.,	*Los Angeles*	10
Bollig, H. L.,	*Los Angeles*	10
Bolognino, O. J.,	*San Francisco*	23
Bolstad, H. C.,	*Oakland*	1
Bolze, E. H.,	*San Francisco*	23
Bonar, P. A.,	*San Francisco*	23
Bond, A. L.,	*Lindsay*	36
Bond, E. C.,	*Hanford*	8
Bond, R. E.,	*San Diego*	22
Bonesteel, H. T. S.,	*Los Angeles*	10
Bonfiglio, J.,	*Hollywood*	10
Bonfiglio, V.,	*Los Angeles*	10
Bonn, H. K.,	*Los Angeles*	10
Bonoff, K. M.,	*Los Angeles*	10
*Bonta, M. B.,	*Los Angeles*	10
Bonthius, A.,	*Pasadena*	10
Bonura, F.,	*Los Angeles*	10
Bonynge, C. W.,	*Los Angeles*	10
Boone, W. R.,	*Berkeley*	1
Boone, T. H.,	*Palo Alto*	28
Boonshaft, L.,	*Los Angeles*	10
Booth, M. M.,	*St. Helena*	15
Borden, F. W.,	*San Jose*	28
Borley, R. D.,	*Half Moon Bay*	26
Borley, W. E.,	*San Francisco*	23
Bormann, G. B.,	*Hollywood*	10
Boscoe, A. R.,	*Sacramento*	19
Boscoe, C. T.,	*Oakland*	1
Boskowitz, G. H.,	*San Francisco*	23
Bost, C.,	*San Francisco*	23
Bost, F. C.,	*San Francisco*	23
Bosworth, H. W.,	*Los Angeles*	10
Botsford, M. E.,	*San Francisco*	23
Bourbon, O. P.,	*Los Angeles*	10
Bowen, A.,	*Los Angeles*	10
Bowen, C. B.,	*Oakland*	1
Bowen, F. P.,	*Los Angeles*	10
Bower, A. G.,	*Glendale*	10
‡Bower, C. F.,	*Long Beach*	10
Bowers, C. H.,	*Los Angeles*	10
Bowers, P. E.,	*Los Angeles*	10
Bowers, W. S.,	*Los Angeles*	10
Bowles, A. M.,	*Santa Rosa*	33
Bowles, F. H.,	*Oakland*	1
Bowman, P. J.,	*Fort Bragg*	12
Bowman, R. J.,	*Los Angeles*	10
Boyce, L.,	*Los Angeles*	10
Boyce, W. A.,	*Los Angeles*	10
Boyd, E. F.,	*Los Angeles*	10
Boyd, E. G.,	*Los Angeles*	10
Boyd, H. W.,	*Los Angeles*	10
Boyd, R. T.,	*San Francisco*	23
Boyd, T. O.,	*Long Beach*	10
Boyd, W. H.,	*Long Beach*	10
Boyer, H. R.,	*Glendale*	10
Boyer, J. I.,	*Long Beach*	10
Boyer, K. H.,	*Los Angeles*	10
Boyers, L. M.,	*Berkeley*	1
Boyle, S. F.,	*San Francisco*	23
Brady, A. L.,	*San Rafael*	11
Braithwaite, W. W.,	*Beverly Hills*	10
Bramhall, R. N.,	*Sacramento*	19
Bramkamp, A. L.,	*Banning*	18
Bramwell, L.,	*Lake Arrowhead*	21
Branch, W. E.,	*Los Angeles*	10
Brandel, H. M.,	*Los Angeles*	10
Brandenburg, K. C.,	*Long Beach*	10
Brandes, L.,	*Los Angeles*	10
Brandt, F. H.,	*Los Angeles*	10
Brannon, M.,	*Merced*	13
Bransford, S. G.,	*Suisun*	32
Bransford, M. B.,	*Vacaville*	32
Brastad, J. P.,	*Anaheim*	16
Brazelton, H.,	*Oakland*	1
Breck, L. W.,	*Rochester, Minn.*	11
Breed, L. M.,	*Pasadena*	10
Breitman, H. B.,	*Los Angeles*	10
Brem, W. V.,	*Los Angeles*	10
Brendel, F. P.,	*Sacramento*	19
Breslin, F. J.,	*Los Angeles*	10
Breuer, C. H.,	*San Jose*	28
Brewer, L. C.,	*Los Angeles*	10
Breyer, J. H.,	*Pasadena*	10
Bricca, C. R.,	*San Francisco*	23
Bridgman, J. G.,	*San Mateo*	26
Bridgman, W. R.,	*Hanford*	8
Briggs, G. A.,	*Sacramento*	19
Briggs, LeR. H.,	*San Francisco*	23
Briggs, W. M.,	*Monrovia*	10
Briggs, W. R.,	*Sacramento*	19
Brigham, E.,	*Dinuba*	36
Brigham, F. O.,	*Los Angeles*	10
Brill, W.,	*Los Angeles*	10
Brinckerhoff, E. E.,	*Oakland*	1
Brinkman, W. F.,	*Long Beach*	10
Briner, C. C.,	*Auburn*	17
Broaddus, C. A.,	*Stockton*	24
Brock, L. H.,	*San Francisco*	23
Brockow, J. L.,	*Los Angeles*	10
Brockway, A.,	*Los Angeles*	10
Brodovsky, D.,	*San Jose*	28
Broemser, M. A.,	*San Jose*	28
Bronfeld, N.,	*Los Angeles*	10
Brooks, C. S.,	*El Centro*	6
Brooks, E. R.,	*Atascadero*	1
Brooks, H. T.,	*Alhambra*	10
Brooks, LeR.,	*San Francisco*	23
Bross, R. B.,	*Venice*	10
Broughton, G. A.,	*Ventura*	37
Brown, A.,	*San Francisco*	23
Brown, A. L.,	*Riverside*	18
Brown, A. L.,	*San Francisco*	23
Brown, B.,	*Sacramento*	19
Brown, B. C.,	*Los Angeles*	10
Brown, B. H.,	*San Ysidro*	22
Brown, B. P.,	*Los Angeles*	10
‡Brown, C.,	*San Francisco*	23
Brown, C. M.,	*Los Angeles*	10
Brown, C. W.,	*San Diego*	22
Brown, C. W.,	*San Diego*	22
Brown, D. F.,	*Redwood City*	26
Brown, E. O.,	*Sacramento*	19
Brown, F. A.,	*Santa Ana*	16
Brown, F. A.,	*Hayward*	1
‡Brown, G. B.,	*Oakland*	1
Brown, G. D.,	*Pomona*	10
Brown, G. W.,	*Los Angeles*	10
Brown, H. A.,	*Berkeley*	1
Brown, H. A.,	*San Francisco*	23
Brown, H. C.,	*San Jose*	28
Brown, H. V.,	*Glendale*	10
Brown, J. M.,	*Los Angeles*	10
‡Brown, J. M.,	*Ferndale*	5
Brown, J. R.,	*Los Angeles*	10
Brown, M. H.,	*Los Angeles*	10
Brown, N. N.,	*Bakersfield*	7
Brown, P. K.,	*San Francisco*	23
Brown, R.,	*Santa Barbara*	27
Brown, R.,	*San Francisco*	23
Brown, R. H.,	*Pasadena*	10
Brown, T. H.,	*Orland*	38
Brown, W. H.,	*Palo Alto*	28
Browne, F. E.,	*Los Angeles*	10
Browne, G. C.,	*Oakland*	1
Brownfield, W. H.,	*Los Angeles*	10
Browning, C. F.,	*Los Angeles*	10
Brownlie, J. W.,	*Vallejo*	32
Brownsberger, C. N.,	*Glendale*	10
Bruck, E. L.,	*San Francisco*	23
Bruckman, F. S.,	*San Francisco*	23
Bruckman, H.,	*San Jose*	28
Bruff, W. C.,	*Whittier*	10
Bruin, M. R.,	*Los Angeles*	10
Brull, A.,	*Los Angeles*	10
Bruman, A. K.,	*San Francisco*	23
Brumbaugh, D. H.,	*Redlands*	21
Brumwell, D.,	*King City*	14
Brunemeier, E. H.,	*Placentia*	16
Brunie, L. J.,	*Pasadena*	10
Brunie, Y. S.,	*Pasadena*	10
Bruning, E. F.,	*Santa Ana*	16
Brunn, H.,	*San Francisco*	23
Brusco, H. D.,	*San Francisco*	23
Brush, N. H.,	*Santa Barbara*	27
Brust, P. R.,	*San Diego*	22
Bryan, L.,	*San Francisco*	23
Bryant, D. C.,	*Claremont*	10
Bryant, H. E.,	*Los Angeles*	10
Buchanan, R. A.,	*Lodi*	24
Buchner, G. O. H.,	*Bakersfield*	7
Buck, L. W.,	*Ross*	23
Buckell, A. E. T.,	*Oakland*	1
Buckingham, J. R.,	*Los Angeles*	10
Buckley, T. I.,	*Oakland*	1
Bucknam, R. W. E.,	*Hollywood*	10
Budd, J. W., Jr.,	*Los Angeles*	10
Budge, E. S.,	*Los Angeles*	10
Bull, E. C.,	*San Francisco*	23
Bullard, C. T.,	*King City*	14
Bullis, J. A. E.,	*Los Angeles*	10
Bullis, R. O.,	*Los Angeles*	10
Bullitt, J. B.,	*San Jose*	28
Bullock, A. S.,	*Alhambra*	10
Bullock, L. T.,	*Los Angeles*	10
Bulpitt, H. G.,	*Santa Monica*	10
Bulpitt, J. M.,	*Santa Ana*	16
Bulpitt, P. A.,	*Santa Monica*	10
Bulpitt, Z. E. N.,	*Santa Ana*	16
Bulson, C. H.,	*Napa*	15
Bumgarner, J. W.,	*Richmond*	3
Bumpus, H. C.,	*Pasadena*	10
Bumpus, L. D.,	*Beverly Hills*	10
Bunnell, S.,	*San Francisco*	23
*Burbank, W. W.,	*Long Beach*	10
Burby, J. J.,	*San Bernardino*	21
Burchardi, K. G. H.,	*Los Angeles*	10
Burchfiel, C. M.,	*San Jose*	28
Burden, H. S.,	*Sacramento*	19
Burg, B. V.,	*Oakland*	1
Burgan, J. H.,	*Los Angeles*	10
Burge, M. H.,	*Los Angeles*	10
Burger, F. A.,	*El Centro*	6
Burger, T. O.,	*San Diego*	22
Burk, C. E.,	*Loma Linda*	21
Burk, E. E.,	*Los Angeles*	10
Burke, A. M. B.,	*Alameda*	1
Burke, D. V.,	*Berkeley*	1
Burke, E. W.,	*Redlands*	21
Burke, G. R.,	*Alameda*	1
Burke, G. T.,	*Pasadena*	10
Burkelman, A.,	*Los Angeles*	10
Burkett, R. C.,	*Napa*	15
Burkhard, W. G.,	*San Francisco*	23
Burks, F. L. R.,	*Fresno*	4
Burlew, J. M.,	*Santa Ana*	16
Burlingame, R. W.,	*San Francisco*	23
Burnap, S. R.,	*Los Angeles*	10
Burnett, C. I.,	*Susanville*	9
Burnham, C. J.,	*Berkeley*	1
Burnham, C. J., Jr.,	*Berkeley*	1
Burnham, DeW. K.,	*San Francisco*	23
Burnham, P. S.,	*Los Angeles*	10
Burns, E. M.,	*Huntington Park*	10
Burns, G. C.,	*Huntington Park*	10
Burns, J. E.,	*Huntington Park*	10
Burns, T. S.,	*San Francisco*	23
Burnside, C.,	*Hollywood*	10
Burrall, G. M.,	*Los Angeles*	10
Burroughs, P. R.,	*Santa Monica*	10
Burrows, C. A.,	*Los Angeles*	10
Burrows, J. R.,	*San Francisco*	23
Burrows, L. A.,	*Los Angeles*	10
Burrows, M. T.,	*Pasadena*	10
Bursell, A.,	*Mountain View*	28
Burtness, H. I.,	*Santa Barbara*	27
Burton, F. A.,	*San Diego*	22
Burwell, L. C.,	*Los Angeles*	10
Busby, J. L.,	*Pasadena*	10
Bush, H. C.,	*Livermore*	1
Buskirk, W. H.,	*Los Angeles*	10
Bussey, D. G.,	*Avalon*	10
Butka, L. J.,	*Alhambra*	10
Butler, E.,	*San Francisco*	23
Butler, F. O.,	*Eldridge*	33
Butler, J. B. V.,	*San Luis Obispo*	25
Butler, K. W.,	*Madera*	4
Butler, O. W.,	*Los Angeles*	10
Butler, W. D.,	*San Luis Obispo*	25
Butt, E. G.,	*Redondo Beach*	10
Butt, E. M.,	*Los Angeles*	10
Butterfield, A. DeF.,	*National City*	22
Butterfield, E. R.,	*Burbank*	10
Butzin, T. A.,	*Beverly Hills*	10
Byers, W. M.,	*Van Nuys*	10
Byington, P. C.,	*Modesto*	34
Byron, R. L.,	*Los Angeles*	10
Byron, W. P.,	*Lemoore*	8

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NAME	CITY	COUNTY SOCIETY NO.
Cady, D. W.,	*Pasadena*	10
Cady, F. P.,	*Los Angeles*	10
Cahen, C. G.,	*Los Angeles*	10
Cahoon, G. W.,	*Los Angeles*	10
Cain, E. F.,	*Anaheim*	16
Cain, W. T.,	*Gardena*	10
Calaway, A. A.,	*Fresno*	4
*Calder, D. H.,	*Los Angeles*	10
‡Caldwell, G. W.,	*Los Angeles*	10
Caldwell, H. M.,	*La Canada*	10
¶Calkins, J. W.,	*Oakland*	1
Callander, C. L.,	*San Francisco*	23
Callaway, A. A.,	*Fresno*	4
Callaway, W. O.,	*Burlingame*	26
Callison, F. W.,	*San Francisco*	23
Calvin, G. F.,	*Oakland*	1
Cameron, A. C.,	*Los Angeles*	10
Cameron, L. C.,	*Santa Ana*	16
Cameron, M. C.,	*Los Angeles*	10
Cameron, N. W. A.,	*Los Angeles*	10
Camp, J. W.,	*La Habra*	16
Campbell, C. C.,	*Long Beach*	10

NAME	CITY	COUNTY SOCIETY NO.
Campbell, C. R.	*San Jose*	28
Campbell, D. McL.	*San Francisco*	23
Campbell, G. E.	*Pasadena*	10
Campbell, H. G.	*Lindsay*	36
Campbell, H. S.	*Los Angeles*	10
Campbell, J. R. U.	*Dunsmuir*	31
Campbell, J. V.	*Oakland*	1
Campbell, L. D.	*San Jose*	28
Campbell, L. G.	*Pasadena*	10
Campbell, M.	*Los Angeles*	10
Campbell, McL.	*San Pedro*	10
Campbell, M. P.	*San Francisco*	23
Campbell, R.	*Los Angeles*	10
Campbell, R. A.	*Los Angeles*	10
Campiche, P. S.	*San Francisco*	23
Canby, C. B.	*Van Nuys*	10
Canelo, C. K.	*San Jose*	28
Canfield, M. C.	*El Centro*	6
Canfield, M. N.	*Redlands*	21
Cannon, F. M.	*San Rafael*	11
Cantoni, A. J.	*San Diego*	22
Card, T. A.	*Riverside*	18
Carden, J. J.	*San Francisco*	1
Carey, H. B.	*San Francisco*	23
Carey, T. S.	*Los Angeles*	10
Carey, W. W.	*Gridley*	2
Carhart, E. C.	*Hollywood*	10
Carlile, M. N.	*Lakeside*	22
Carlson, C. M.	*Santa Rosa*	33
Carlson, E.	*San Francisco*	23
Carlson, E. F.	*Fort Jones*	31
Carlson, F. J.	*Oakland*	1
Carmack, J. C.	*San Bernardino*	21
‡Carmichael. H.	*Sacramento*	19
Carpenter, F. L.	*Berkeley*	1
Carpenter, H. C.	*Berkeley*	1
Carpenter, H. L.	*Richmond*	3
Carr, J. L.	*San Francisco*	23
Carroll, R. L.	*Los Angeles*	10
Carroll, W. A.	*San Francisco*	23
Carson, A. B.	*Oakland*	1
Carson, D. A.	*San Francisco*	23
Carson, G. R.	*San Francisco*	23
Carter, A. E.	*North Hollywood*	10
Carter, C. E.	*Pasadena*	10
Carter, F. H.	*San Diego*	22
Carter, J. M.	*San Francisco*	23
Carter, M. G.	*Los Angeles*	10
Carter, R. A.	*Los Angeles*	10
Carter, R. H.	*Fresno*	4
Carter, W. E.	*San Francisco*	1
Carter, W. N.	*Los Angeles*	10
Cartmell, T. M.	*Los Angeles*	10
Cartwright, E. W.	*Oceanside*	22
Caruso, T. D.	*Los Angeles*	10
Carver, W. F., Jr.	*Hollywood*	10
Cary, N. A.	*Berkeley*	1
Cary, R. J.	*Long Beach*	10
Cary, W. S.	*San Francisco*	23
Case, C. E.	*Santa Maria*	27
Case, L. W.	*Pomona*	10
Casey, H. A.	*Oakland*	1
Casey, T. J.	*Oakland*	1
Caskey, C. R.	*Los Angeles*	10
Cass, D.	*Los Angeles*	10
Cassady, E. S.	*San Pedro*	10
Cassell, I.	*San Jose*	28
Castlehun, P.	*San Francisco*	23
Cates, H. B.	*Los Angeles*	10
Catton, J.	*San Francisco*	23
Cavanaugh, L. A.	*Santa Barbara*	27
Cecil, A. B.	*Los Angeles*	10
Cecil, J. J.	*Patton*	21
Cerf, A. E.	*San Francisco*	23
Chabanoff, E.	*San Francisco*	23
Chaffee, B. S.	*Long Beach*	10
Chaffin, G. L.	*Los Angeles*	10
Chaffin, R. C.	*Los Angeles*	10
Chaimov, A. S.	*San Francisco*	23
Chain, J. N.	*Eureka*	5
Chalmers, J. F.	*La Jolla*	22
Chaloupka, H. R.	*Los Angeles*	10
Chamberlain, B. H.	*Alhambra*	10
Chamberlain, E. F.	*San Diego*	22
Chamberlain, G. L.	*Oakland*	1
Chamberlain, W. E.	*Philadelphia, Pennsylvania*	23
Chamberlin, H. H.	*Glendora*	10
Chambers, S. O.	*Los Angeles*	10
Chamlee, W. F.	*Hanford*	8
Champion, J. A.	*Colton*	21
Chandler, L. R.	*San Francisco*	23
Chaney, L. A.	*Los Angeles*	10
Chang, D. K.	*San Francisco*	23
Channell, W. L.	*Oakland*	1
Chapline, F. L.	*Orange*	16
Chapman, G. E.	*San Francisco*	23
Chapman, H. S.	*Stockton*	24
Chapman, J. F.	*Pasadena*	10
Chapman, J. L.	*Los Angeles*	10
Chapman, L. E.	*Gerber*	35
Chapman, L. S.	*Los Angeles*	10
Chapman, W. H.	*Blythe*	18
Chappell, A. E.	*Vallejo*	32
Chappell, G. E.	*Sacramento*	19
Chappell, H. W.	*Los Angeles*	10
Charles, H. L.	*Alhambra*	10
Charlesworth, I. E.	*Imola*	15
Charlton, A. T.	*Whittier*	10
Charlton, C. F.	*Pasadena*	10
Charmack, D. D.	*San Francisco*	23
Charnock, D. A.	*Los Angeles*	10
Chase, A. E.	*Santa Ana*	16
Chase, A. S.	*Los Angeles*	10
Chase, F. H.	*Los Angeles*	10
Chase, R. E.	*Glendale*	10
‡Chavannes, V. C.	*Los Angeles*	10
Chavez, M.	*Los Angeles*	10
Cheney, G.	*San Francisco*	23
Cheney, L. D.	*Los Angeles*	10
Cheney, M. C.	*Berkeley*	1
Cheney, W. F.	*San Francisco*	23
Cherry, C. F.	*Los Angeles*	10
Cherry, W. S.	*Rialto*	21
Chesbro, E. J.	*Gilroy*	28
Chessman, F. N.	*Los Angeles*	10
Chiapella, J. O.	*Chico*	2
Chidester, W. C.	*San Mateo*	26
Childress, M. H.	*Ione*	19
Childrey, J. H.	*Santa Barbara*	27
Chilton, F. N.	*San Jose*	28
Ching, P. S.	*Fresno*	4
Chipman, E. D.	*San Francisco*	23
Chipman, W. D.	*Los Angeles*	10
Chouret, E. E.	*Riverbank*	34
Christensen, A. C.	*Glendale*	10
Christensen, E. L.	*Los Angeles*	10
Christensen, G. E.	*Los Angeles*	10
Christensen, W.	*Los Angeles*	10
Christensen, W. M.	*Eagle Rock*	10
Christian J. T.	*Galt*	19
Christie, R. C.	*Long Beach*	10
Christierson, S. von	*San Francisco*	23
Christman, P. W.	*Sacramento*	19
Christopherson, E. R.	*San Diego*	22
Church, C. H.	*Berkeley*	1
Church, I. O.	*Oakland*	1
Church, M. V.	*Norwalk*	10
Churchill, A. G.	*Coronado*	22
Churchill, J. F.	*San Diego*	22
Cieri, S.	*Oakland*	1
Cilley, H. A.	*San Jose*	28
Citron, J. W.	*Oakland*	1
Clark, C. W.	*San Rafael*	11
Clark, D. G.	*Santa Paula*	37
Clark, D. M.	*Santa Barbara*	27
Clark, E. B.	*Stanford University*	28
Clark, E. P.	*Los Angeles*	10
Clark, F. A.	*Riverside*	18
Clark, G. S.	*Los Angeles*	10
Clark, I. S.	*Long Beach*	10
Clark, J. A.	*Gilroy*	28
Clark, J. I.	*Santa Ana*	16
Clark, J. W.	*Santa Rosa*	33
Clark, L. J.	*Hemet*	18
Clark, M. F.	*San Francisco*	1
Clark, T. J.	*Oakland*	1
Clark, V. G.	*San Diego*	22
Clark, W. A.	*Pasadena*	10
Clark, W. F.	*Los Angeles*	10
Clark, W. R. P.	*San Francisco*	23
Clark, W. S.	*Ventura*	37
Clarke, A. F.	*Oakland*	1
Clarke, F. B.	*Long Beach*	10
Clarke, R. M.	*Los Angeles*	10
Clarke, W. T.	*Los Angeles*	10
Clay, H. E.	*San Francisco*	23
Clayton, J. H.	*Los Angeles*	10
Cleary, E. W.	*San Francisco*	23
Cleary, G. G.	*San Francisco*	23
Cleave, D. C.	*San Francisco*	23
Clecak, N. J.	*Oakland*	1
Cleeves, M.	*La Crescenta*	10
Clemmer, C. V.	*San Marino*	10
Clemons, E. J.	*Los Angeles*	10
Cline, J. W.	*San Francisco*	23
Clock, C. J.	*Redlands*	21
Close, F. M.	*San Francisco*	23
Close, K. M.	*Los Angeles*	10
Clough, F. E.	*San Bernardino*	21
Clough, V. R.	*Long Beach*	10
Coate, C. R.	*Whittier*	10
Coate, J. D.	*Oakland*	1
Coates, G. L., Jr.	*Martinez*	3
Coblentz, L. B.	*San Francisco*	23
Coblentz, Z. B.	*San Francisco*	23
Cochran, G. H.	*Los Angeles*	10
Cochran, G. V.	*Oakland*	1
Cochran, R. C.	*Yorba Linda*	16
Cocks, C. E.	*Oakland*	1
Coe, H. C.	*Oakland*	1
Coeur-Barron, F. H.	*Los Angeles*	10
Coffey, E. C.	*Orland*	38
Coffey, G. C.	*Ventura*	37
Coffey, S. E.	*Orland*	38
Coffey, W. B.	*San Francisco*	23
Coffin, H. W.	*Los Angeles*	10
Coghlan, C. C.	*Los Angeles*	10
Cohen, M.	*San Francisco*	23
Cohn, A. L.	*San Francisco*	23
Cohn, H. J.	*San Francisco*	23
Cohn, J.	*San Francisco*	23
Cohn, J.	*Los Angeles*	10
Cohn, M. L.	*San Francisco*	23
Cohn, S.	*San Francisco*	23
Colburn, J. M.	*Riverside*	18
Colby, E. G.	*San Diego*	22
Cole, E. R.	*Selma*	31
*Cole, G. L.	*Los Angeles*	10
Cole, W.	*Long Beach*	10
Coleman, B. E.	*Los Angeles*	10
Coleman, D. D.	*Alhambra*	10
Coleman, F. D.	*Los Angeles*	10
Coller, G. J.	*Los Angeles*	10
Collings, H. A.	*Susanville*	9
Collins, A. W.	*San Francisco*	23
Collins, C. D.	*Fresno*	4
Collins, D. C.	*Los Angeles*	10
Collins, F. K.	*Los Angeles*	10
Collins, J. L.	*Turlock*	34
Collins, M. C.	*Turlock*	34
Collis, W. H. L.	*Stockton*	24
Collischonn, P.	*San Francisco*	23
Colver, B. N.	*Glendale*	10
Comfort, H. W.	*Fortuna*	5
Commons, E. L.	*Los Angeles*	10
Compton, C. S.	*Bakersfield*	7
Comstock, B. W.	*Los Angeles*	10
Comstock, D. D.	*Los Angeles*	10
Comstock, T. R.	*Los Angeles*	10
Condit, J. C.	*Oakland*	1
Condit, J. D.	*Pasadena*	10
Congdon, W. R.	*Santa Cruz*	29
Conklin, C. M.	*Glendale*	10
Conlan, F. J. S.	*San Francisco*	23
Conlan, P. T.	*Los Angeles*	10
Conn, C. E.	*Los Angeles*	10
Connell, DeB. W.	*Berkeley*	1
Connell, J. A.	*Riverside*	18
Conner, A. W.	*San Jose*	28
Connor, C. L.	*San Francisco*	23
Conroy, B. J.	*Fairfax*	11
Conroy, T. F.	*Palo Alto*	28
Conser, W. H.	*Guadalupe*	27
Conzelmann, F. J.	*Stockton*	24
Cooder, H. R.	*Los Angeles*	10
Coodley, O.	*Los Angeles*	10
Cook, C. S.	*Los Angeles*	10
Cook, C. W.	*Los Angeles*	10
Cook, E. D.	*Azusa*	10
Cook, E. F.	*Los Angeles*	10
Cook, E. J.	*Los Angeles*	10
Cook, E. P.	*San Jose*	28
Cook, J. D.	*Olive View*	10
Cook, O. S.	*Sacramento*	19
Cook, W. C.	*Los Angeles*	10
Cook, W. P.	*Los Angeles*	10
Cooke, A. B.	*Los Angeles*	10
Cooke, W. C.	*San Diego*	22
Cooley, C. L.	*San Francisco*	23
Coon, G. W.	*Riverside*	18
Cooper, A. J.	*San Diego*	22
Cooper, B.	*Arcata*	5
Cooper, C. M.	*San Francisco*	23
Cooper, F. G.	*Huntington Park*	10
Cooper, G. P.	*Angels Camp*	24
Cooper, J. A.	*Modesto*	34
Cooper, T. E.	*Davis*	38
Cooper, W.	*Palo Alto*	28
Corbin, D. E.	*San Diego*	22
Cordes, F. C.	*San Francisco*	23
Cordua, O. B.	*San Diego*	22
Cornell, H. D.	*San Diego*	22
Corneille, J. G.	*Berkeley*	1
Cornett, W. F.	*Pasadena*	10
Cornwall, T. W.	*San Francisco*	23
Corr, W. P.	*Riverside*	18
Cortright, C. B.	*Berkeley*	1
Cosgrove, C. P.	*Los Angeles*	10
Cosgrove, J. B.	*Los Angeles*	10
Coshow, G. H.	*Carpinteria*	27
Costolow, W. E.	*Los Angeles*	10
Cottle, C. C.	*Los Angeles*	10
Cottrell, C. C.	*Scotia*	5
Cottrell, E. L.	*San Jose*	28
Cottrell, J. C.	*Long Beach*	10
Couey, E. J.	*Fresno*	4
Coughlin, J. H.	*San Bernardino*	21
Coulter, H. M.	*South Pasadena*	10
Coulter, J. D.	*Portola*	8
Counter, C. E.	*Loma Linda*	21
Counter, H. M.	*Buena Park*	16
Courville, C. B.	*Los Angeles*	10
Cowan, A. B.	*Fresno*	4
Cowgill, C. H.	*Huntington Park*	10
Cowin, C. C.	*Hollywood*	10
Cowles, D. C.	*Fullerton*	16
Cox, B. E.	*Coalinga*	4
Cox, E. R.	*Los Angeles*	10
Cox, F. J.	*Placerville*	19
Cox, G. W.	*San Francisco*	23
Cox, J. E.	*Coalinga*	4

NAME	CITY	COUNTY SOCIETY NO.
Cox, T. J.,	*San Francisco*	23
Cox, W. J.,	*San Francisco*	23
Coyle, J. D., Jr.,	*Sacramento*	19
Coyne, A. E.,	*Los Angeles*	10
Crabtree, E. G.,	*San Diego*	22
Crabtree, E. H.,	*San Diego*	22
Crabtree, W. C.,	*San Diego*	22
Craft, E. D.,	*Los Angeles*	10
Crahan, M. E.,	*Los Angeles*	10
Craig, C. A.,	*Lakeport*	12
Craig, J. B.,	*Uplands*	21
Craig, L. G.,	*Pasadena*	10
Craig, R. G.,	*San Francisco*	23
Craig, S. A.,	*Ontario*	21
Craik, C. W.,	*Venice*	10
Crandall, F. G.,	*Santa Monica*	10
Crane, C. C.,	*San Francisco*	23
Crane, E. H.,	*Inglewood*	10
Crane, H. W.,	*Berkeley*	1
Crane, J. J.,	*Los Angeles*	10
Crane, W. R.,	*Los Angeles*	10
Crane, W. W.,	*Oakland*	1
Crase, H. R.,	*Los Angeles*	10
Craven, L. L.,	*Glendale*	10
Craviotto, J. V.,	*Stockton*	24
Crawford, J. W.,	*San Francisco*	23
Crawford, W. W.,	*San Diego*	22
Crawshaw, J. A.,	*Hanford*	9
Crease, F. J.,	*Bakersfield*	16
Crease, H. G.,	*Bakersfield*	7
Cress, W. W.,	*Sacramento*	19
*Cressman, R. G.,	*Stockton*	24
Cresson, M.,	*Cincinnati, Ohio*	27
Crew, D. A.,	*San Luis Obispo*	25
Criley, C. H.,	*Los Angeles*	10
Crisp, N. J.,	*Benicia*	32
Crispin, E. L.,	*Los Angeles*	10
Crockett, H. C.,	*Hayward*	1
Croft, L. E.,	*Ocean Park*	10
Cronan, L. A.,	*Davis*	38
Cronemiller, R. E.,	*Exeter*	36
Crooks, S. A.,	*Loma Linda*	21
Crosby, D.,	*Oakland*	1
Cross, W. W.,	*Oakland*	1
Crossan, J. W.,	*Los Angeles*	10
Crossen, A. S.,	*Weimar*	17
Crow, L. B.,	*San Francisco*	23
Crowe, H. E.,	*Los Angeles*	10
Crowe, J. A.,	*San Francisco*	23
Crowl, V. C.,	*Huntington Park*	10
Crowley, E.,	*Santa Maria*	27
Crozier, H. C.,	*Los Angeles*	10
Cruikshank, G. H.,	*San Diego*	22
Crum, H. C.,	*Alameda*	1
Crum, R. A.,	*Oakland*	1
Crusan, R. E.,	*Monrovia*	10
Cryst, J. H.,	*Los Angeles*	10
‡Cullen, B. R.,	*Long Beach*	10
‡Cummings, H.,	*Los Angeles*	10
Cummings, J. C.,	*Glendale*	10
Cummings, R. A.,	*Los Angeles*	10
Cummings, R. S.,	*Los Angeles*	10
Cummins, F. A.,	*Los Angeles*	10
Cuneo, J. C.,	*San Jose*	28
Cuneo, P. J.,	*Bakersfield*	7
Cunha, F.,	*San Francisco*	23
Cunnane, P. J.,	*Los Angeles*	10
Cunnane, T. B.,	*Los Angeles*	10
Cunningham, R. L.,	*Los Angeles*	10
Cunningham, R. L.,	*Berkeley*	1
Cunningham, T. M.,	*La Mesa*	22
Cunningham, T. T.,	*Huntington P'k*	10
Cunningham, W. E.,	*Richmond*	3
Curdts, C. E.,	*Oakland*	1
Currey, H. M.,	*Santa Ana*	16
Currie, A. H.,	*Los Angeles*	10
Curtis, C. G.,	*Brea*	16
Curtis, L. E.,	*Isleton*	19
Cushman, G. F.,	*San Francisco*	23
Cushman, R. A.,	*Talmage*	12
Custer, L. R.,	*San Francisco*	23
Cutler, O. I.,	*Loma Linda*	21
Cutter, R. K.,	*Berkeley*	1
Cutting, J. A.,	*Agnew*	28

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NAME	CITY	COUNTY SOCIETY NO.
Dabney, T. G.,	*San Francisco*	1
Dahleen, H. E.,	*San Jose*	28
Dahlgren, R. W.,	*Fresno*	4
‡Dail, C. W.,	*Loma Linda*	21
Dailey, W. J.,	*Oakland*	1
Daily, K.,	*Richmond*	3
Dakin, W. B.,	*Los Angeles*	10
Dale, C. L.,	*Loma Linda*	21
Dale, M. B.,	*Pasadena*	10
d'Alessio, J. A.,	*Santa Barbara*	27
Dallas, D. A.,	*San Francisco*	23
Daly, L. E.,	*Needles*	21
Dameron, J. D.,	*Stockton*	24
¶Damkroeger, H.,	*San Francisco*	20
Daniel, W. H.,	*Los Angeles*	10
‡Daniels, A. C.,	*San Rafael*	11
Darling, H. H.,	*San Francisco*	23
Dart, A. E.,	*Oakland*	1
Dashiell, W. A.,	*Los Angeles*	10
Dasse, H. W.,	*Los Angeles*	10
‡Dassett, J. W.,	*Dos Palos*	13
Dau, N. J.,	*Fresno*	4
Davenport, J. D.,	*Los Angeles*	10
Davidson, B. R.,	*Brawley*	6
David, R. A.,	*Los Angeles*	10
Davis, A. D.,	*San Francisco*	23
Davis, A. S.,	*Oakland*	1
Davis, E. A.,	*San Francisco*	23
Davis, F. J.,	*Westwood*	9
Davis, F. J., Jr.,	*Westwood*	9
Davis, H. C.,	*San Francisco*	23
Davis, H. H.,	*El Segundo*	10
Davis, H. J.,	*Sacramento*	19
Davis, H. L.,	*Huntington Park*	10
Davis, H. W.,	*San Francisco*	23
Davis, J. D.,	*Los Angeles*	10
Davis, K. S.,	*Los Angeles*	10
Davis, S. S.,	*Oakland*	1
Davison, C. L.,	*Los Angeles*	10
Davison, S. T.,	*San Francisco*	23
Davitt, G. G.,	*Los Angeles*	10
Davlin, L. P.,	*Gonzales*	14
Davy, D. G.,	*San Francisco*	23
Dawson, G. I.,	*Napa*	15
Day, E. C.,	*Laguna Beach*	16
Day, P. W.,	*Repressa*	19
Day, R. V.,	*Los Angeles*	10
Dayton, G. O.,	*Los Angeles*	10
Dazey, G. K.,	*Santa Monica*	10
Deacon, G.,	*Pasadena*	10
Deamer, W. C.,	*San Francisco*	23
Deane, L. C.,	*San Francisco*	23
Dearing, B. F.,	*San Francisco*	23
Dearborn, R. R.,	*Madera*	3
Debenham, M. W.,	*San Francisco*	23
de Campos, P. do A. R.,	*Hanford*	8
de Carle, D. W.,	*San Francisco*	23
Decker, C. W.,	*Los Angeles*	10
Decker, R. M.,	*Pasadena*	10
Deering, W. E.,	*Hollywood*	10
‡Deissler, K. J.,	*Oakland*	1
Delamere, G. S.,	*Marysville*	39
DeLancey, C. A.,	*San Rafael*	11
DeLappe, F. R.,	*Modesto*	34
De Long, E. W.,	*Los Angeles*	10
Delprat, G. D., Jr.,	*San Francisco*	23
Delprat, J. L. P.,	*San Francisco*	23
Dement, D. E.,	*Los Angeles*	10
Dempsey, R. B.,	*Vallejo*	32
Denman, C. H.,	*Berkeley*	1
Dennis, H. O.,	*Beverly Hills*	10
Denton, W. L.,	*Trona*	21
DePuy, C. A.,	*Oakland*	1
Derrick, J. S.,	*Los Angeles*	10
Desch, W. D.,	*Oakland*	1
Desimone, L. O.,	*Los Angeles*	10
Desmond, M. A.,	*Santa Monica*	10
Desparois, G. B.,	*Los Angeles*	10
Desrosier, G. W.,	*Colusa*	38
Desser, A. L.,	*Los Angeles*	10
Detling, F. E.,	*Los Angeles*	10
De Vaul, C. H.,	*Oakland*	1
Devin, S. B.,	*Los Angeles*	10
Dewey, E. B.,	*Pasadena*	10
Dewey, E. T.,	*San Francisco*	23
Dewey, H. G.,	*Yosemite*	13
Dick, P. J.,	*Oakland*	1
Dickerson, D. G.,	*Los Angeles*	10
Dickerson, H. W.,	*San Diego*	22
Dickey, C. A.,	*San Francisco*	23
Dickey, C. D., Jr.,	*Los Angeles*	10
Dickie, W. M.,	*Berkeley*	1
Dickinson, A. E.,	*Los Gatos*	28
Dickinson, C. C.,	*McCloud*	31
‡Dickson, A. J.,	*Glendale*	10
Dickson, E. C.,	*San Francisco*	23
Didier, F. W.,	*Wheatland*	39
Diederich, O. P.,	*Fresno*	4
Diefenbach, W. E.,	*La Jolla*	22
Dieffenbacher, P. F.,	*Jamestown*	24
Diepenbrock, A. B.,	*San Francisco*	23
Diesner, H. G.,	*Sunnyvale*	27
Dieterle, K. L.,	*Los Angeles*	10
Dietrich, H.,	*Los Angeles*	10
Dietz, H. L.,	*Oakland*	1
Diggs, C. S.,	*Los Angeles*	10
Dignan, H. H.,	*San Francisco*	23
Dillingham, F. S.,	*Los Angeles*	10
Dillon, E. T.,	*Los Angeles*	10
Dillon, J. R.,	*San Francisco*	23
Dillon, V. M.,	*San Francisco*	23
Dispensa, J. G.,	*Santa Barbara*	27
Diven, G. R.,	*Los Angeles*	10
Dixon, C. D.,	*Santa Monica*	10
‡Dixon, C. E.,	*Patton*	21
Dixon, H. L.,	*Southgate*	10
Dixon, H. B.,	*San Francisco*	23
Doane, B. L.,	*Pasadena*	10
‡Doane, C. P.,	*Fresno*	4
Doane, F. L.,	*Red Bluff*	35
Doane, P. S.,	*Pasadena*	10
Dock, G.,	*Pasadena*	10
Dock, W.,	*San Francisco*	23
Dockweiler, R. R.,	*Los Angeles*	10
Dodge, D. R., Jr.,	*San Diego*	10
Dodge, W.,	*Los Angeles*	10
Doehring, C. F.,	*Pasadena*	10
Dolan, P. E.,	*Livermore*	1
Dole, K. L.,	*Redlands*	21
Dolley, F. S.,	*Los Angeles*	10
Domann, A. H.,	*Orange*	16
Donald, W. G.,	*Berkeley*	1
Donelan, James P.,	*Los Angeles*	10
Donoher, W. D.,	*Los Angeles*	10
Donohoe, E. C.,	*Glendale*	10
Donovan, M.,	*San Francisco*	23
Dooley, J. B.,	*Compton*	10
Doran, A. V.,	*Vallejo*	32
Dorius, G. R.,	*Oakland*	1
Dormody, H. F.,	*Monterey*	14
Dormody, H. L.,	*Monterey*	14
Dorr, W. R.,	*Arlington*	18
Dostal, R. J.,	*Santa Monica*	10
Dougall, J. P.,	*Los Angeles*	10
Dougan, S.,	*San Jose*	28
Dougherty, E. E.,	*Los Angeles*	10
Dougherty, J. A.,	*Oakland*	1
Dougherty, P. S.,	*Los Angeles*	10
Doughty, J. F.,	*Tracy*	24
Douglass, P.,	*San Francisco*	23
Dow, J. N.,	*Los Angeles*	10
Dowd, R. E.,	*San Bernardino*	21
Dowling, S. W.,	*Santa Cruz*	29
Downing, S. R.,	*Oakland*	1
Downs, A. J.,	*Los Angeles*	10
Downs, L.,	*Hollywood*	10
Doyle, G. P.,	*Berkeley*	1
Doyle, J. B.,	*Los Angeles*	10
Doyle, J. C.,	*Los Angeles*	10
Doyle, J. J. L.,	*Chico*	2
Doyle, O. B.,	*Fresno*	4
Dozier, D. F.,	*Sacramento*	19
Dozier, E.,	*Redding*	30
Dozier, E. G.,	*San Fernando*	10
Dozier, L.,	*Stockton*	24
Dozier, T. J.,	*Antioch*	3
Drace, C. G.,	*Ojai*	37
Dragoo, S. V.,	*Avenal*	8
Drake, D. D.,	*San Francisco*	23
Drake, J. C.,	*Kerman*	4
Draper, D. B.,	*San Jose*	28
Drees, L. A.,	*San Francisco*	23
Drennan, P. G.,	*Oakland*	1
Dresel, R. L.,	*San Francisco*	23
Driver, C. O.,	*Los Angeles*	10
Drucks, E. S.,	*Oakland*	1
Drummond, T. A.,	*Randsburg*	21
Dryden, F. M.,	*Pasadena*	10
Dryer, D. S.,	*Los Angeles*	10
Dryer, R. G.,	*Los Angeles*	10
Dryfoos, H. L.,	*San Francisco*	23
*DuBois, C. W.,	*Los Angeles*	10
Dubois, W. C.,	*Santa Ana*	16
Dudley, H. W.,	*San Rafael*	11
Dufficy, G. W.,	*Sacramento*	19
Duffield, W.,	*Los Angeles*	10
Duggan, H.,	*San Francisco*	23
Dukes, C. A.,	*Oakland*	1
Dunbar, W. V.,	*San Pedro*	10
Duncan, J. A.,	*Marysville*	39
Duncan, M. V.,	*Lompoc*	27
Duncan, R. A.,	*Placentia*	16
Duncan, R. D.,	*Los Angeles*	10
Duncan, W. C.,	*Los Angeles*	10
Dundas, R. C.,	*Los Angeles*	10
Dunievitz, M.,	*Auburn*	17
Dunklee, G. K.,	*San Luis Obispo*	25
Dunlap, A. K.,	*Sacramento*	19
*Dunlap, F. C.,	*Brawley*	6
Dunlop, J.,	*Pasadena*	10
Dunn, R. H.,	*San Francisco*	23
Dunne, N. P.,	*Oakland*	1
Dupuich, L. R.,	*Oakland*	1
Durgin, R. M.,	*Berkeley*	1
Durr, S. A.,	*San Diego*	22
Dutcher, W.,	*Los Angeles*	10
Dutton, M. L.,	*San Francisco*	23
Duvall, E. M.,	*Long Beach*	10
Dye, W. G.,	*Los Angeles*	10
Dyke, L. H.,	*Oakland*	1
Dykes, H. R.,	*Taft*	7
Dyment, B. S.,	*Stanford University*	28
Dysart, B. R.,	*Pasadena*	10

— E —

NAME	CITY	COUNTY SOCIETY NO.
Eager, B. F.,	*San Diego*	22
Eakin, M. A.,	*Fresno*	4
Earel, F.,	*Santa Ana*	16

NAME	CITY	COUNTY SOCIETY NO.
Earl, H. D.	*San Pedro*	10
Earle, L. M.	*Los Angeles*	10
Early, C. E.	*Los Angeles*	10
Earwood, E. R.	*Los Angeles*	10
Eastman, B. R.	*Pasadena*	10
Eastman, W. R.	*La Jolla*	22
‡Easton, D. E. F.	*San Francisco*	23
Eaton, H. D.	*Los Angeles*	10
Eaton, J. L.	*Berkeley*	1
Eaton, W. H.	*Santa Barbara*	27
Eaves, J.	*Oakland*	1
Eberhardt, G.	*Gonzales*	14
Ebright, G. E.	*San Francisco*	23
Eckerle, W. J.	*Wilmington*	10
Eckhardt, W.	*Los Angeles*	10
Eddy, I. H.	*Glendale*	10
Eder, H. L.	*Santa Barbara*	27
Eder, L. F.	*Santa Barbara*	27
Edgerton, A. E.	*San Francisco*	23
Edler, W.	*Pasadena*	10
Edmonds, F. W.	*Oakland*	1
Edson, P. J.	*Pasadena*	10
Edward, J. T.	*Pasadena*	10
Edwards, F. A.	*Los Angeles*	10
Edwards, H. W.	*Los Angeles*	10
Edwards, J. C.	*Berkeley*	1
Edwards, M. E.	*San Francisco*	23
Edwards, W. M.	*San Rafael*	11
Ehlers, E. C.	*Loma Linda*	21
Ehlers, H.	*Fowler*	4
¶Ehrenclou, O. N.	*San Francisco*	23
Ehrke, A. A.	*Compton*	10
Eldenmuller, W. C., Jr.	*San Francisco*	23
Eisen, E. G.	*Los Angeles*	10
Eiskamp, E. H.	*Watsonville*	29
Eklund, O. E.	*San Francisco*	23
Eldridge, S.	*Crockett*	3
Elkins, D. L.	*Long Beach*	10
Ellefson, O. D.	*Hughson*	34
Elliot, A. H., Jr.	*Santa Barbara*	27
Elliott, A. L.	*Berkeley*	1
Elliott, F. P.	*San Diego*	22
Elliott, H. M.	*Los Angeles*	10
Ellis, E. D.	*Altadena*	10
Ellis, G.	*Berkeley*	1
Ellis, H. O.	*Chico*	2
Ellis, J. A.	*Alameda*	1
Ellis, L. T.	*Los Angeles*	10
Ellis, L. W.	*Los Angeles*	10
Ellsworth, A. B.	*Long Beach*	10
Ellwood, P. M.	*Oakland*	1
Eloesser, L.	*San Francisco*	23
Ely, L. W.	*San Francisco*	28
Emerson, C. V.	*Los Angeles*	10
Emerson, M. L.	*Oakland*	1
Emery, C. E.	*San Francisco*	23
Emery, C. K.	*Los Angeles*	10
Emge, L. A.	*San Francisco*	23
Emmons, C. L.	*Ontario*	21
Empey, L. W.	*Roseville*	17
Empie, W. M.	*San Pedro*	10
Emrick, E. L.	*Venice*	24
Ende, F. M.	*Hollywood*	10
Endres, W. J.	*Los Angeles*	10
Eneboe, J. B.	*San Diego*	22
Engel, E. E.	*San Bernardino*	21
Engelman, W. T.	*San Bernardino*	21
Engle, H. M.	*San Francisco*	23
English, C. F.	*Stockton*	24
English, G. G.	*Hollywood*	10
Enloe, N. T.	*Chico*	2
Enos, J. B.	*Oakland*	1
Enos, M. M.	*Oakland*	1
Epsteen, A.	*San Francisco*	23
Epstein, A. I.	*Los Angeles*	10
Epstein, N. N.	*San Francisco*	23
Erkenbeck, J. W.	*San Diego*	22
Erlanger, V. J.	*San Diego*	22
Ernsberger, G. H.	*Covina*	10
Escamilla, R. F.	*San Francisco*	23
Eshman, L. A.	*Los Angeles*	10
Eshoo, D.	*Los Angeles*	10
Esnard, R. P.	*Los Angeles*	10
Esslinger, P. H.	*San Juan Capistrano*	16
Etter, O. R.	*Oakland*	1
Eusden, R. B.	*Long Beach*	10
Evans, H. R.	*Kernville*	7
Evans, J. H.	*Highland*	21
Evans, L. M.	*Pasadena*	10
Evans, N. G.	*S. Pasadena*	10
Evans, R. D.	*Santa Barbara*	27
Evans, V. L.	*San Luis Obispo*	25
Eveleth, R. H.	*Roseville*	17
Everingham, S.	*Oakland*	1
Every, H. M.	*Petaluma*	33
Ewens, F.	*Beverly Hills*	10
Ewer, E. N.	*Oakland*	1
Ewer, J. N.	*Oakland*	1
Ewing, F. E.	*Oakland*	1
Exelby, P. B.	*Los Angeles*	10
Eymundson, K. S.	*San Francisco*	23

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NAME	CITY	COUNTY SOCIETY NO.
Faber, H. K.	*San Francisco*	23
Fabian, J. P.	*Chico*	2
Facey, F. D.	*San Fernando*	10
Fagan, R. H.	*Los Angeles*	10
Fagan, S. F.	*Los Angeles*	10
Fagerstrom, D. P.	*San Jose*	28
Fairchild, A.	*Lancaster*	10
Fairchild, C. H.	*Woodland*	38
Fairchild, F. R.	*Woodland*	38
Fairchild, L. H.	*Carlsbad*	22
Falconer, E. H.	*San Francisco*	23
Falconer, F. H.	*Los Angeles*	10
Falconer, R. A.	*Los Angeles*	10
Falk, C. C.	*Eureka*	5
Falk, C. C., Jr.	*Eureka*	5
Falk, C. L.	*Eureka*	5
Falk, E. V.	*Modesto*	34
‡Falk, H.	*Visalia*	36
Fallas, R. E.	*Los Angeles*	10
Fanning, J. L.	*Sacramento*	19
Fanson, E.	*Pasadena*	10
Faris, H. S.	*Riverside*	18
Farman, G. F.	*Los Angeles*	10
Farmer, J. L.	*San Diego*	22
Farmer, L. E.	*Folsom City*	19
Farnham, R. M.	*Glendale*	10
Farnsworth, T. K.	*Long Beach*	10
Farr, W. H.	*Salinas*	14
Farrage, J.	*Santa Ana*	16
Farrell, J. W.	*Los Angeles*	10
Farrell, L. W.	*Sacramento*	19
Farrington E. D.	*El Monte*	10
Farrow, E. J.	*San Diego*	22
Fate, M. W.	*Los Angeles*	10
Fate, W. A.	*Los Angeles*	10
Fath, A.	*San Francisco*	23
Faulkner, E. C.	*Rio Vista*	32
Faulkner, J. L.	*Red Bluff*	35
Faulkner, W. B., Jr.	*San Francisco*	23
Fay, J.	*San Francisco*	23
Fearn, J. R.	*Oakland*	1
Fearon, W. M.	*Los Angeles*	10
Feeley, M. A.	*San Francisco*	[illegible]
‡Fegen, S.	*Los Angeles*	10
Fehliman, W. E.	*Santa Cruz*	29
Fehrensen, G.	*Inglewood*	10
Feinberg, H.	*San Francisco*	23
Feingold, B. F.	*Los Angeles*	10
Felberbaum, W.	*Santa Paula*	37
Feldman, C.	*Maywood*	10
Feldman, J. F.	*Los Angeles*	10
Felger, L.	*Los Angeles*	10
Fellows, F. D.	*San Francisco*	23
Felps, H. E.	*Riverside*	18
Felsenthal, L.	*Los Angeles*	10
Felt, F. R.	*Ocean Beach*	22
Fenton, W. W.	*San Bernardino*	21
Ferguson, C. J.	*Los Angeles*	10
Ferguson, R. A.	*Los Angeles*	10
Fernandez, M. L.	*Pinole*	3
Fernish, C. A.	*Santa Clara*	28
Ferrante, A. A.	*San Francisco*	23
Ferrier, P. A.	*Pasadena*	10
Ferry, F. C.	*Los Angeles*	10
Fetter, E. M.	*San Diego*	22
Fibush, A.	*San Francisco*	23
Fiegel, F. X.	*San Bernardino*	21
Field, A. M.	*Patterson*	34
Fielder, R. L.	*San Francisco*	23
Fielding, G. A.	*Brentwood Heights*	10
Fields, M.	*Los Angeles*	10
Fieseler, W. R.	*Los Angeles*	10
Filipello, E. A.	*San Jose*	28
Fillmore, J. R.	*Strathmore*	36
Finan, A. P.	*Suisun*	32
Finch, W. C.	*Los Angeles*	10
Findlay, F. M.	*Santa Barbara*	27
Findlay, H. V.	*Santa Barbara*	27
‡Findley, H. P.	*El Centro*	6
Fine, I. A.	*Los Angeles*	10
Finkelberg, I. L.	*San Bernardino*	21
Finnerty, E. J.	*Sonoma*	33
Finsand, V.	*San Francisco*	23
Firestone, F.	*San Francisco*	23
Fischer, S. S.	*Oakland*	1
Fish, E. S.	*Beverly Hills*	10
Fish, L. W.	*Los Angeles*	10
Fishbaugh, E. C.	*Los Angeles*	10
Fishbon, H. M.	*San Francisco*	23
Fisher, A. L.	*San Francisco*	23
Fisher, C.	*Los Angeles*	10
Fisher, C. A.	*Los Angeles*	10
Fisher, R. E.	*Pomona*	10
Fisher, R. H.	*Oakland*	1
Fisher, V. L.	*Long Beach*	10
Fisher, W. L.	*Pomona*	10
Fist, H. S.	*Los Angeles*	10
Fitzgerald, J. J.	*Richmond*	3
Fitzgerald, W. W.	*Stockton*	24

NAME	CITY	COUNTY SOCIETY NO.
Fitzgibbon, C. C.	*Merced Falls*	13
Fitzpatrick, E. B.	*Martinez*	3
Flamson, R. J.	*Los Angeles*	10
Flatley, M.	*Weimar*	17
Fleisher, A. J.	*Berkeley*	1
Fleissner, C. M.	*Santa Rosa*	33
Fleming, E. W.	*Los Angeles*	10
Fleming, H. W.	*San Francisco*	23
Fleming, L. P.	*Sanger*	4
Flesher, R. E.	*Gardena*	10
Fletcher, C. D.	*San Francisco*	23
Fletcher, E. G.	*Oakland*	1
Fletcher, H. A.	*San Francisco*	23
Fletcher, R.	*San Francisco*	23
Flewelling, L. M.	*Glendale*	10
Flitcroft, L. M. I.	*Sacramento*	19
*Floersheim, S.	*Los Angeles*	10
Flood, R. G.	*San Francisco*	23
Floreth, O. P.	*Dixon*	32
Flower, K. C.	*Venice*	10
Fluhmann, C. F.	*San Francisco*	23
Flyer, H.	*Los Angeles*	10
Foard, F. T.	*San Francisco*	27
Fogel, E. T.	*Los Angeles*	10
Fogg, E. S.	*Wasco*	7
Folkenberg, A. W.	*Los Angeles*	10
Folkins, F. H.	*Redlands*	21
Folte, A. G.	*San Francisco*	23
Foord, A. G.	*Pasadena*	10
Foote, C. G.	*San Diego*	22
Foote, F. S.	*San Francisco*	23
Forbes, H. J.	*Pasadena*	10
Forcade, W. P.	*Corona*	18
Ford, H. G.	*Richmond*	3
Ford, R. A.	*Los Angeles*	10
Foree, L.	*Oakland*	1
Fornoff, H. S.	*Oakland*	1
Forsythe, J. S.	*San Bernardino*	21
Fortier, R. M.	*Salinas*	14
Fortson, G. R.	*Susanville*	9
Foshay, A. W.	*Oakland*	1
Foster, A. H.	*Brawley*	6
Foster, C. A.	*Los Angeles*	10
Foster, E. C.	*Hanford*	8
Foster, G. A.	*Sacramento*	19
Foster, H. E.	*Berkeley*	1
Foster, J. G.	*Los Angeles*	10
Foster, P. A.	*Los Angeles*	10
‡Foster, P. D.	*Los Angeles*	10
Fouch, F. L.	*San Francisco*	23
Foulks, C. A.	*Long Beach*	10
Fountain, E. R.	*Merced*	13
Fowler, C. B.	*Oakland*	1
Fowler, D. C.	*Mill Valley*	11
Fowler, G. W. J.	*Santa Clara*	28
Fowler, H. L.	*Los Angeles*	10
Fox, C. M.	*San Diego*	22
Fox, D. S.	*Berkeley*	1
Fox, H. W.	*Tulare*	36
Fox, L. H.	*Bakersfield*	7
‡Fox, W. F.	*El Centro*	6
Frame, P. W.	*Elk Grove*	19
Francis, R. T.	*Northampton, Mass.*	37
Francis, R. K.	*Inglewood*	10
Francis, V. C.	*Long Beach*	10
Francis, W. V. C.	*Los Angeles*	10
Francoz, M. A.	*San Francisco*	23
Frandy, M. F.	*Oakland*	1
Frank, J. A.	*Pismo Beach*	25
Franklin, D. M.	*Los Angeles*	10
Franklin, E. A.	*Los Angeles*	10
Franklin, W. S.	*Santa Barbara*	27
Fraser, H. E.	*San Francisco*	23
Fraser, L. H.	*Richmond*	3
Fraser, M. L.	*Los Angeles*	10
Frawley, J. M.	*Fresno*	4
Frederickson, H.	*Eldridge*	33
Frees, B. M.	*Los Angeles*	10
Fregeau, A. N.	*San Francisco*	23
Freibrun, J. L.	*Los Angeles*	10
Freidell, H. F.	*Santa Barbara*	27
French, C. E.	*San Francisco*	23
French, J. R.	*Los Angeles*	10
Freudenthal, L.	*Gridley*	2
Frey, B. A.	*Los Angeles*	10
Frey, R. G.	*Red Bluff*	35
Frey, W. C.	*San Francisco*	23
Freyermuth, O. G.	*San Francisco*	23
Freytag, C. F.	*Los Angeles*	10
Frick, D. J.	*Los Angeles*	10
Fricke, A. A.	*Los Angeles*	10
Friedberger, W.	*Stockton*	24
Friedlander, R. D.	*San Francisco*	23
Friedman, A.	*San Francisco*	26
Friedman, J. C.	*Banning*	18
Friedman, M.	*Los Angeles*	10
Friesen, H. J.	*Glendale*	10
Frisch, A.	*Los Angeles*	10
Fritschen, W.	*San Francisco*	23
Frizzell, R. R.	*Pasadena*	10
Froehlich, D. E.	*Oakland*	1
Frohman, B. S.	*Los Angeles*	10

NAME	CITY	COUNTY SOCIETY NO.
Frost, E.,	*Stockton*	24
Frost, G. A.,	*Quincy*	9
Frost, K. P.,	*Los Angeles*	10
Frug, J.,	*Oakland*	1
Fuller, M. B.,	*Julian*	22
Fuller, R. N.,	*Tulare*	36
Fulmer, C. C.,	*San Francisco*	23
Furbush, C. G.,	*Oakland*	1
Furlong, R. M.,	*San Francisco*	11
Furness, G. B.,	*Visalia*	36
Furstman, J. M.,	*Monrovia*	10
Futch, C. E.,	*Los Angeles*	10

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NAME	CITY	COUNTY SOCIETY NO.
Gaffney, G. F.,	*San Francisco*	23
Gafford, J. A.,	*Huntington Park*	10
Gage, A. E.,	*Los Angeles*	10
Gage, A. T.,	*Redlands*	21
Gage, C. E.,	*Los Angeles*	10
Gageby, L. H.,	*Los Angeles*	10
Gagnon, A. L.,	*San Diego*	22
Gailmard, C. R.,	*Los Angeles*	10
Gailmard, P. L.,	*Los Angeles*	10
Galbraith, A.,	*Oakland*	1
Galbraith, F. B.,	*Alameda*	1
Galbraith, G. H.,	*Long Beach*	10
Gale, W. V.,	*Los Angeles*	10
Gallagher, H. F.,	*Los Angeles*	10
‡Gallagher, V. J.,	*Los Angeles*	10
Gallant, A. E.,	*Los Angeles*	10
Gallant, P. A.,	*Huntington Park*	10
Gallegos, P. B.,	*Stockton*	24
Galligan, C. A.,	*Monterey*	14
Gallwey, J.,	*San Francisco*	23
Gamette, D. L.,	*Los Angeles*	10
Ganoe, C. V.,	*Los Angeles*	10
Gans, C. H.,	*Long Beach*	10
‡Gant, H. R.,	*Modesto*	34
*Garcelon, H.,	*Arrowhead Springs*	21
Garcia, L. C.,	*San Francisco*	23
Gardner, C. S.,	*Oakland*	1
Gardner, F. M.,	*San Bernardino*	21
Gardner, F. W.,	*Loma Linda*	21
Gardner, H. L.,	*San Francisco*	23
‡Gardner, K. D.,	*San Francisco*	23
Gardner, W. E.,	*Riverside*	18
Gardner, W. M.,	*Los Angeles*	10
Garfinkle, F. E.,	*San Francisco*	23
Garland, L. H.,	*San Francisco*	23
Garner, G. W.,	*Taft*	7
Garnett, A. S.,	*San Bernardino*	21
Garrett, F. H.,	*Patton*	21
Garrison, B. E.,	*Riverside*	18
Garrison, J. F.,	*Inglewood*	10
Garrison, O. H.,	*Oakland*	1
Garrison, W. P.,	*Long Beach*	10
Garstang, D. B.,	*Los Angeles*	10
Garth, W. L.,	*San Diego*	22
Gaspard, F. J.,	*Los Angeles*	10
Gassman, F.,	*Los Angeles*	10
Gasteiger, E. S.,	*Los Angeles*	10
Gates, C. Y.,	*San Francisco*	23
Gates, F. K.,	*El Monte*	10
Gates, M. G.,	*Ocean Park*	10
Gates, M. J.,	*Santa Cruz*	29
Gatliff, W. W.,	*Butte City*	38
Gattuccio, B.,	*San Jose*	28
Gaulden, C. L.,	*Los Angeles*	10
Gauthier, A. E.,	*San Francisco*	23
Gay, H. M.,	*Pasadena*	10
Gay, LeR. K.,	*San Francisco*	23
Geddes, M. A.,	*Santa Ana*	16
Gehrels, E.,	*San Francisco*	23
Gehrels, F.,	*San Mateo*	26
Geiger, J. C.,	*San Francisco*	23
Geisler, W. H.,	*San Jose*	28
Geistweit, W. H., Jr.,	*San Diego*	22
Geith, C. R.,	*Riverside*	18
Gelston, C. F.,	*San Francisco*	23
Gentry, H. G.,	*Redlands*	21
George, A. R.,	*Loma Linda*	21
George, J. DeW.,	*Los Angeles*	10
George, J. M.,	*San Francisco*	23
George, L. H.,	*Loma Linda*	21
George, W. A.,	*Loma Linda*	21
Gerisch, H. H.,	*Los Angeles*	10
Gerlach, F. C.,	*San Jose*	28
Gerlough, R. J.,	*Menlo Park*	26
Germann, A. C.,	*Los Angeles*	10
Gernand, H. C.,	*Los Angeles*	10
Gerrard, C. C.,	*Redding*	30
Gerstle, M., Jr.,	*San Francisco*	23
Geshelin, H. I.,	*Los Angeles*	10
Geyman, M. J.,	*Santa Barbara*	27
Ghormley, V. G.,	*Fresno*	4
Ghrist, D. G.,	*Los Angeles*	10
Ghrist, D. M.,	*Glendale*	10
Ghrist, O. E.,	*Glendale*	10
Giannini, A. H.,	*Los Angeles*	23
Giberson, A. F.,	*Watsonville*	29
Gibbons, H., III,	*Silver Lake*	23
Gibbons, H. W.,	*Sacramento*	19
Gibbons, M. R.,	*San Francisco*	23
Gibbons, M. R., Jr.,	*San Francisco*	23
Gibbs, D. H.,	*Los Angeles*	10
Gibbs, R. S.,	*San Bernardino*	21
Gibbs, W. M.,	*Glendale*	10
Gibson, A. L.,	*Los Angeles*	10
Gibson, T. E.,	*San Francisco*	23
Gidley, D. S.,	*Ontario*	21
Gidoll, S. H.,	*San Francisco*	23
Gifford, M. A.,	*Berkeley*	23
Gilbert, J. S.,	*Los Angeles*	10
Gilbert, N.,	*Van Nuys*	10
Gilbert, Q. O.,	*Oakland*	1
Gilbert, R.,	*San Francisco*	23
Gilbert, W. H.,	*Los Angeles*	10
Gilcreest, E. L.,	*San Francisco*	23
Giles, F. E.,	*Los Angeles*	10
Gilfillan, H. M.,	*San Francisco*	23
Gilkey, W. D.,	*Long Beach*	10
Gillespie, P. B.,	*Santa Ana*	16
Gilliatt, W. H.,	*Coalinga*	4
Gillihan, A. F.,	*San Luis Obispo*	25
Gilliland, M. L.,	*Los Angeles*	10
Gilliland, R. C.,	*Huntington Park*	10
Gillis, J. D.,	*Los Angeles*	10
Gillis, J. P.,	*Los Angeles*	10
Gilman, A. A.,	*San Francisco*	23
Gilman, P. K.,	*San Francisco*	23
Ginsburg, H. M.,	*Fresno*	4
Ginsburg, S. S.,	*Visalia*	36
Giovanetti, R. P.,	*San Francisco*	23
Girard, F. R.,	*San Francisco*	23
Girdlestone, C. W.,	*Riverside*	18
Gius, E. A.,	*San Francisco*	23
Glascock, F. L.,	*Los Angeles*	10
Glaser, M. A.,	*Los Angeles*	10
Glass, K. W.,	*Venice*	10
Glass, S. J.,	*Los Angeles*	10
Glassman, S. C.,	*Los Angeles*	10
Gleason, A. L.,	*Oakland*	1
Gleeten, S. D.,	*Monrovia*	10
Glenn, J. S.,	*Exeter*	36
Glenn, R. A.,	*Oakland*	1
Glenn, T. H.,	*Los Angeles*	10
Glidden, R. Y., Jr.,	*Los Angeles*	10
Gliebe, P. A.,	*San Francisco*	23
Gloor, E. E.,	*Watsonville*	29
Glyer, R. T.,	*Mountain View*	28
Gobar, F. H.,	*Fullerton*	16
Gocher, T. E. P.,	*Fairfax*	11
Goddard, W. P.,	*Mill Valley*	11
Godshall, L. D.,	*Los Angeles*	10
Godwin, D. E.,	*Long Beach*	10
Goeckerman, W. H.,	*Los Angeles*	10
Goin, L. S.,	*Los Angeles*	10
Golden, J. H.,	*San Francisco*	23
Goldberg, A. T.,	*Fresno*	4
Goldberg, B.,	*Los Angeles*	10
Goldberg, M. B.,	*San Francisco*	23
Goldberg, P. H.,	*Los Angeles*	10
Goldberg, S. S.,	*Los Angeles*	10
Goldberg, V.,	*Long Beach*	10
Golding, D. G.,	*Santa Monica*	10
Goldman, T. H.,	*Los Angeles*	10
Goldman, V. S.,	*San Francisco*	23
Goldstein, J.,	*Los Angeles*	10
Goldwasser, M.,	*Los Angeles*	10
Golitzin, A.,	*Los Angeles*	10
Gomes, J. J.,	*Oakland*	1
Gompertz, K. R.,	*Berkeley*	1
Goodall, O. P.,	*Bakersfield*	7
Goodman, M.,	*Stockton*	24
Gorb, R.,	*San Francisco*	23
Gordon, G. O.,	*Long Beach*	10
Gordon, K. W.,	*Los Angeles*	10
Gorham, C. B.,	*Monterey*	14
‡Gorrell, J. S.,	*Los Angeles*	10
Gosney, C. W.,	*Hollywood*	10
Gospe, S. M.,	*San Francisco*	23
Gossage, H. S.,	*Petaluma*	33
Gossard, J. E.,	*Sierra Madre*	10
Gotfredson, H. L.,	*So. Pasadena*	10
Gottbrath, N. J.,	*Agnew*	28
Gottlieb, A. J.,	*Los Angeles*	10
Gottschalk, A.,	*San Francisco*	23
Gough, A. S.,	*El Segundo*	10
Gouguet, L. J.,	*Sacramento*	19
Gould, N. B.,	*Modesto*	34
Gourley, I.,	*Livermore*	1
Gowan, C. H.,	*Glendale*	10
‡Graeser, H. B.,	*Holtville*	6
Graeser, J. B.,	*Oakland*	1
Graham, H. B.,	*San Francisco*	23
Graham, H. K.,	*San Diego*	22
*Graham, J. A.,	*Barstow*	21
Graham, J. P.,	*Los Angeles*	10
Graham, L.,	*Newberry*	21
Graham, R. E.,	*Oakland*	1
Graham, R. S.,	*Sacramento*	19
Granger, A. S.,	*Los Angeles*	10
Grant, B. E., Jr.,	*Glendale*	10
Grant, J. F.,	*Long Beach*	10
Grant, R. F.,	*San Francisco*	23
Gratiot, W. M.,	*Monterey*	14
Grau, E. C.,	*Niles*	1
Graun, R. E.,	*Los Gatos*	28
Graves, C. A.,	*Beverly Hills*	10
Graves, J. H.,	*San Francisco*	23
Graves, J. M.,	*San Francisco*	23
Graves, R. V.,	*Fullerton*	16
Gray, E.,	*Los Angeles*	10
Gray, E. E.,	*Marysville*	39
Gray, E. H.,	*Woodland*	38
Gray, G. A.,	*San Jose*	28
Gray, H.,	*San Francisco*	23
‡Gray, J. P.,	*San Francisco*	23
Gray, J. R.,	*Carmel*	14
Gray, P. A., Jr.,	*Santa Barbara*	27
Gray, R. M.,	*Indio*	18
Gray, R. N.,	*Hartford, Conn*	23
Graybill, M. B.,	*Escondido*	22
Grayman, H. M.,	*Dos Palos*	13
Green, A. S.,	*San Francisco*	23
Green, B., Jr.,	*Riverside*	18
Green, D. M.,	*Los Angeles*	10
Green, H. R.,	*Palo Alto*	28
Green, J.,	*Los Angeles*	10
Green, J. W.,	*Vallejo*	32
Green, L. D.,	*San Francisco*	23
Green, M. I.,	*San Francisco*	23
Green, R. C.,	*Fullerton*	16
Greenbaum, G. B.,	*Los Angeles*	10
Greenbaum, L. H.,	*Los Angeles*	10
Greengo, C. G.,	*Los Angeles*	10
Greenway, H. H.,	*Los Angeles*	10
Greenwood, C. F.,	*Oakland*	1
Greenwood, E. N.,	*San Francisco*	23
Greer, E. D.,	*Oakland*	1
Gregg, F. C.,	*Calexico*	6
Gregg, H. J.,	*Calexico*	6
Gregory, C. A.,	*Sanitarium*	15
Gregory, F. S.,	*Redwood City*	26
Gregory, H. L.,	*Stockton*	24
Gregory, W. A.,	*Oakland*	1
Grey, C. A.,	*Burbank*	10
Griffin, W. L.,	*Los Angeles*	10
Griffith, A. H.,	*Oakland*	1
Griggs, D. E.,	*Los Angeles*	10
Grimmer, E. M.,	*Irvington*	1
Griner, E. C.,	*Stockton*	24
Grishaw, W. H.,	*Los Angeles*	10
Groat, M. J.,	*Los Angeles*	10
Grodsky, L. I.,	*San Francisco*	23
Groff, S. H.,	*Los Angeles*	10
Grogan, R. E.,	*Los Angeles*	10
Gronhovd, G. O.,	*Santa Paula*	37
Groper, M. J.,	*San Francisco*	23
Gross, H. G.,	*Eureka*	5
Grosse, A. B.,	*San Francisco*	23
Groves, R. L.,	*San Francisco*	23
Grow, L. W.,	*San Diego*	22
Gruber, F. G.,	*Santa Monica*	10
Grundy, G. M.,	*Newport Beach*	16
Guedel, A. E.,	*Beverly Hills*	10
Guenther, L. P.,	*Los Angeles*	10
Guerra, A. L.,	*Alameda*	1
Guidinger, W. E.,	*San Pedro*	10
Guido, F. R.,	*Visalia*	36
Guinan, E. R.,	*Richmond*	3
Gumbiner, A. A.,	*Los Angeles*	10
Gummess, K. C.,	*Los Angeles*	10
Gummig, E. A.,	*Pasadena*	10
Gumpert, M. W.,	*Los Angeles*	10
Gunderson, H. J.,	*Los Angeles*	10
Gundrum, F. F.,	*Sacramento*	19
Gundrum, L. K.,	*Los Angeles*	10
Gundrum, W. H.,	*Owensmouth*	10
Gundry, F. J.,	*Bakersfield*	7
Gunn, F. G.,	*Kelseyville*	15
Gunther, L.,	*Los Angeles*	10
Gustafson, A. W.,	*Gustine*	13
Gustafson, R. K.,	*Pasadena*	10
Guttman, P. H.,	*Sacramento*	19

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NAME	CITY	COUNTY SOCIETY NO.
Haas, S. L.,	*San Francisco*	23
Haber, W. J.,	*San Francisco*	23
Hablutzel, C. E.,	*San Jose*	28
Haddow, N. W. A.,	*Los Angeles*	10
Hadley, C. M.,	*San Bernardino*	21
Haenszel, A. L.,	*San Bernardino*	21
Hagan, B. J.,	*San Francisco*	23
Hagedorn, E. F.,	*Modesto*	34
Hagen, H.,	*San Luis Obispo*	25
Hager, B. H.,	*Los Angeles*	10
Hahn, L. W.,	*Berkeley*	1

NAME	CITY	COUNTY SOCIETY NO.
Haig, T. R.	*Sacramento*	19
Haight, L. M.	*Stockton*	24
Haines, C. L.	*Altadena*	10
Haines, W. H.	*Etna*	31
Haining, R. B.	*Glendale*	10
Hainsworth, E. L.	*Ventura*	37
Halburg, C. T.	*Glendale*	10
Haldeman, K. O.	*San Francisco*	23
Hale, N. G.	*Sacramento*	19
Haley, P. S.	*San Jose*	28
Hall, C.	*Oakland*	1
Hall, C.	*Los Angeles*	10
Hall, C. C.	*Oakland*	1
Hall, E. H.	*Vernon*	10
Hall, E. M.	*Los Angeles*	10
Hall, G. E.	*Palo Alto*	28
Hall, G. J.	*Sacramento*	19
Hall, G. P.	*San Jose*	28
Hall, G. S.	*Los Angeles*	10
Hall, L. L.	*Montebello*	10
Hall, R. C.	*San Diego*	22
Hall, T. G.	*San Francisco*	23
Halley, E. C.	*Sanger*	4
Halloran, C. R.	*Los Angeles*	10
Halsey, W. H.	*San Diego*	22
Halverson, W. L.	*Pasadena*	10
Ham, G. H.	*Culver City*	10
Haman, J. O.	*San Francisco*	23
Hambleton, H. G.	*Los Angeles*	10
Hambleton, M. P.	*Fontana*	21
Hambo, C. C.	*Los Angeles*	18
Hamer, C.	*Glendale*	10
Hamilton, G. V.	*Santa Barbara*	27
‡Hamilton, H. P.	*Los Angeles*	10
Hamilton, J. K., Jr.	*Alameda*	1
‡Hamilton, J. R.	*Los Angeles*	10
Hamilton, L. M.	*Oakland*	1
Hamilton, P. L.	*Chico*	2
Hamilton, P. M.	*Alhambra*	10
Hamilton, R. L.	*Marysville*	39
Hamlin, O. D.	*Oakland*	1
Hamlin, R. E.	*Santa Rosa*	33
Hammack, R. W.	*Los Angeles*	10
Hammond, N. E.	*Los Angeles*	10
‡Hammons, E. B.	*Los Angeles*	10
Hand, F. B.	*San Francisco*	23
Hand, L. J.	*San Francisco*	23
Hanford, F. W.	*Los Angeles*	10
Hankins, F. D.	*Riverside*	18
Hankins, J. W.	*Azusa*	10
Hanley, B. J.	*Los Angeles*	10
Hanlon, E. R.	*Los Angeles*	10
Hanlon, E. W.	*San Francisco*	23
Hanlon, H. H.	*Los Angeles*	10
Hanna, C. M.	*McArthur*	30
Hannah, W.	*Long Beach*	10
Hansen, A. M.	*Los Angeles*	10
Hansen, O. J.	*Redding*	30
Hanson, J. H.	*San Francisco*	23
Hanson, S.	*Stockton*	24
Hanten, J. S.	*San Francisco*	23
Hanze, H. G.	*Solvang*	27
Hanzlik, P. J.	*San Francisco*	26
Happ, W. M.	*Los Angeles*	10
Hara, H. J.	*Los Angeles*	10
Hara, M. F.	*Los Angeles*	10
Harada, M. A.	*Sacramento*	19
Harbaugh, O. S.	*San Diego*	22
Harbaugh, R. W.	*San Francisco*	23
Harbert, E.	*Stockton*	24
Hardeman, V. V.	*San Francisco*	23
Harder, W. R.	*Los Gatos*	28
Hardgrave, L. E.	*San Francisco*	23
Harding, G. F.	*Santa Monica*	10
Harding, H. W.	*Oakland*	1
Harding, L. W.	*Los Angeles*	10
Harding, M. C.	*San Diego*	22
Harding, T. E. W.	*Los Angeles*	10
Hardy, B. W.	*Huntington Beach*	16
Hare, G. A.	*Fresno*	4
Hare, H. P.	*Los Angeles*	10
Hare, M. M.	*Glendale*	10
Hare, R. A.	*Santa Barbara*	27
Harmon, E. D.	*San Francisco*	23
Harmon, T. G.	*San Francisco*	23
Harner, C. E.	*Long Beach*	10
Harner, H. R.	*Los Angeles*	10
Harper, T. C.	*Reno, Nevada*	11
Harrington, D. O.	*San Francisco*	23
‡Harrington, E. R.	*San Francisco*	23
Harrington, J. T.	*Santa Cruz*	29
Harr, R. V.	*Eldridge*	33
Harris, E. L.	*Oakland*	1
Harris, F. I.	*San Francisco*	23
Harris, H. I.	*Los Angeles*	10
Harris, J. B.	*Sacramento*	19
Harris, J. M.	*Los Angeles*	10
Harris, M. S.	*Los Angeles*	10
Harris, M. W.	*Ross*	11
Harris, R. C.	*Santa Ana*	16
Harris, R. E.	*San Francisco*	23
Harris, R. H.	*Los Angeles*	10
Harrison, E.	*Los Angeles*	10
Harrison, E. S.	*Gridley*	2
Harrison, F.	*Gridley*	2
Harrison, W. H.	*San Francisco*	23
Harrison, W. J.	*Guernsey, Wyo*	10
Hart, A. C.	*Sacramento*	19
Hart, C. D.	*San Francisco*	23
Hart, M. E.	*San Francisco*	26
Hart, V. W.	*Yreka*	31
‡Hart, W. E.	*Glendale*	10
Hart, W. E.	*Oakland*	1
Harter, T. H.	*Pasadena*	10
Hartman, G. J.	*Pasadena*	10
Hartman, G. W.	*San Francisco*	23
Hartman, H.	*Modesto*	34
Hartman, M. M.	*San Francisco*	23
Hartwell, R. W.	*Beaumont*	18
Hartwig, L. G.	*Los Angeles*	10
Harvey, J. E.	*Pasadena*	10
Harvey, R. J.	*Anaheim*	16
Harwood, D. A.	*Santa Ana*	16
Hashiba, G. K.	*Fresno*	4
Haskell, H. A.	*Windsor*	33
Haskell, P. F.	*Artesia*	10
Hastings, H.	*Los Angeles*	10
Hastings, S. W.	*Monterey*	14
Hastreiter, R. F.	*Los Angeles*	10
Hatfield, H. L.	*Pasadena*	10
Hawes, R. E.	*Huntington Beach*	16
Hawk, C. L.	*Los Angeles*	10
Hawkins, C. L.	*Taft*	7
Hawkins, G. A.	*Reedley*	4
Hawkins, G. G.	*Madera*	4
Hawkins, H. M.	*E. Bakersfield*	10
Hawkins, J. O.	*San Rafael*	11
Hawkins, L. P.	*Los Angeles*	10
*Hawley, M. C.	*Agnew*	28
Haworth, M. W.	*Sacramento*	19
Haworth, W. L.	*Los Angeles*	10
Hay, E. O.	*Los Angeles*	10
Hayes, C. M.	*Los Angeles*	10
Hayes, E. W.	*Monrovia*	10
Haygood, A. G.	*Downey*	10
Hayhurst, D. E.	*Ontario*	21
Hayhurst, J. S.	*Redlands*	21
Haynes, F. W.	*Los Angeles*	10
Haynes, J. R.	*Los Angeles*	10
Hays, M. S.	*San Francisco*	23
Hayton, C. H.	*Los Angeles*	10
Hazel, J. K.	*San Francisco*	23
Hazeltine, M. E.	*San Rafael*	11
Heald, A. H.	*San Francisco*	26
Heald, E. S.	*Berkeley*	1
Heard, W. R.	*Laguna Beach*	10
‡Hearn, T. M., Jr.	*Azusa*	10
Hebert, A. W.	*San Francisco*	23
Hedberg, C. C.	*San Francisco*	23
Heddens, V. O.	*Pasadena*	10
Hedges, L. A.	*Richmond*	3
Heegler, F. D.	*Napa*	15
Heffelfinger, M. A.	*Los Angeles*	10
Heidenreich, H. H.	*Los Angeles*	10
Heidenreich, W. M.	*Arcada*	10
Heiges, L. E.	*Lompoc*	27
Heiges, L. E., Jr.	*Lompoc*	27
Hein, G. E.	*San Francisco*	23
Heinatz, M. A.	*Oakland*	1
Heinz, R.	*Pleasanton*	1
‡Heinzman, W. H.	*San Francisco*	23
Heissig, I.	*Los Angeles*	10
Held, F.	*Colton*	16
Helsley, G. F.	*San Francisco*	23
Helstrom, G. L.	*Fontana*	21
Hemken, L.	*Los Angeles*	21
Hemminger, G. W.	*Biggs*	2
Hench, J. M.	*Stockton*	24
Henderson, A. M.	*Sacramento*	19
Henderson, E. W.	*Alameda*	1
Henderson, H. E.	*Santa Barbara*	27
Henderson, H. G.	*San Francisco*	23
Henderson, J. G.	*San Francisco*	23
Henderson, R. G.	*Long Beach*	10
Henderson, W. R.	*Long Beach*	10
Hendricks, F. R.	*Ventura*	37
Hendrickson, H. S.	*Los Angeles*	10
Henke, G. B.	*Ontario*	21
Henning, B. H.	*San Francisco*	23
Henninger, L. L. R.	*Pasadena*	10
Henrich A. G.	*Los Angeles*	10
Henry, A. W.	*San Leandro*	1
Henry, J. R.	*Oakland*	1
Henry, M. G.	*Los Angeles*	10
Hensel, G. C.	*San Francisco*	23
Hensler, H. N.	*San Anselmo*	11
Hepplewhite, J. G.	*Chico*	2
Heppner, G. J.	*San Francisco*	23
Herman, B. S.	*San Francisco*	23
‡Herman, H. E.	*Corona*	18
Heron, I. C.	*San Francisco*	23
Herrick, A. B., Jr.	*Santa Rosa*	33
Herrick, F. L.	*Livermore*	1
Herring, J. B.	*San Francisco*	23
Herscher, H. L.	*Los Angeles*	10
Hershberger, L.	*Los Angeles*	10
Hershey, C. J.	*Los Angeles*	10
Hershman, F.	*Los Angeles*	10
Hertzog, F. C.	*Long Beach*	10
Herzikoff, S. S.	*Los Angeles*	10
Herzog, G. K.	*San Francisco*	23
Hessel, V. E.	*Los Angeles*	10
Heuler, L.	*Fellows*	7
Heuschele, W. H.	*San Jose*	28
Hewitt, D.	*Los Angeles*	10
Heylmun, H. H.	*Long Beach*	10
Hiatt, R. S.	*Modesto*	34
Hibben, J. S.	*Pasadena*	10
Hickey, N. G.	*Walnut Park*	10
Hicks, A. M.	*San Francisco*	23
Hicks, J. R.	*Tulare*	36
Hieronymus, A.	*Oakland*	1
Higbee, D. R.	*San Diego*	22
Higgs, D. W. P.	*Chula Vista*	22
Hileman, J. E.	*San Diego*	22
Hill, A. L.	*Los Angeles*	10
Hill, E. J.	*Eureka*	5
Hill, E. W.	*San Andreas*	24
Hill, H. A.	*San Francisco*	23
Hill, H. G.	*Redlands*	21
Hill, H. P.	*San Francisco*	23
Hill, J. C.	*Palm Springs*	18
Hill, L. R.	*Long Beach*	10
Hill, M. R.	*Los Angeles*	10
Hill, R. B.	*Los Angeles*	10
Hill, R. C.	*Exeter*	36
Hill, T. P.	*Lakeport*	12
Hill, W. B.	*Long Beach*	10
Hiller, A. W.	*Long Beach*	10
Hilliard, C. G.	*Redlands*	21
Hills, C. B.	*Berkeley*	1
Hillyard, L. V.	*Los Angeles*	10
Hillyer, L.	*Los Banos*	13
Hilton, J. J.	*Los Angeles*	10
Hinckley	*Corcoran*	8
Hines, D. C.	*Palo Alto*	28
Hines, L. W.	*Santa Rosa*	33
Hinman, F.	*San Francisco*	23
Hippach, R. M.	*Los Angeles*	10
Hirschfeld, M. H.	*San Francisco*	23
Hirshfeld, S.	*Los Angeles*	10
Hiscox, E. J.	*Loma Linda*	21
Hitchcock, H. H.	*Oakland*	1
Hixson, W. C., Jr.	*Beverly Hills*	10
Hoag, C. L.	*San Francisco*	23
Hoag, H. J.	*San Jose*	28
Hoagland, H.	*Palm Springs*	18
Hobdy, W. C.	*San Francisco*	23
Hodgdon, F. W., Jr.	*Pasadena*	10
Hodges, W. A.	*La Vina*	10
Hodgins, F. W.	*Oakland*	1
Hodgin, R. I.	*Upland*	21
Hodgkin, P.	*El Centro*	6
Hoefer, A. G.	*San Diego*	22
Hoffman, A. M.	*Los Angeles*	10
Hoffman, H. V.	*San Francisco*	23
Hoffman, L. H.	*San Francisco*	23
Hoffman, P. B.	*Marysville*	39
Hoffman, P. E.	*San Francisco*	23
Hoffman, R. O.	*San Diego*	22
‡Hogan, M. J.	*San Diego*	22
Hogg, R. L.	*Saratoga*	28
Hohanshelt, A. S.	*Olive View*	10
Hohl, E. M.	*Los Angeles*	10
Hoke, P. I.	*Los Angeles*	10
Holcomb, W. F.	*Oakland*	1
Holder, H. G.	*San Diego*	22
Holeman, G. S.	*Centerville*	1
Holladay, F. S.	*Los Angeles*	10
Hollenbeck, A. E.	*Eagle Rock*	10
Holleran, G. C.	*Brawley*	6
Holleran, J. F.	*Los Angeles*	10
Holleran, W. M.	*Los Angeles*	10
Holley, W. W.	*Inglewood*	10
Holliger, C. D.	*Stockton*	24
Hollingsworth, L. D.	*Los Angeles*	10
Hollingsworth, M. W.	*Santa Ana*	16
Hollombe, B. S.	*Los Angeles*	10
Holm, E.	*Eureka*	5
Holman, E. F.	*San Francisco*	23
Holman, W. F.	*Los Angeles*	10
Holmer, V. C.	*San Francisco*	23
Holmes, A. J.	*Pasadena*	10
Holmes, O. M.	*San Mateo*	26
Holt, C. Z.	*Los Angeles*	10
Holt, R. A., Jr.	*Los Angeles*	10
Holzman, A. J.	*Santa Barbara*	27
Holzman, R. R.	*Los Angeles*	10
Hombach, F. J.	*Santa Barbara*	27
Homer, R. W.	*Ventura*	37
Homman, G. L.	*Los Angeles*	10
Homme, O. H.	*Los Angeles*	10
Honaker, G. T.	*San Leandro*	1
Honor, H. C.	*Cotati*	33
Honor, V. O.	*Cotati*	33
Hoobler, H. R.	*Oakland*	1

NAME	CITY	COUNTY SOCIETY NO.
Hooker, M. O.,	*Santa Barbara*	27
Hooval, J. H.,	*Ontario*	21
Hoover, E. F.,	*San Diego*	22
Hoover, J. N.,	*Long Beach*	10
Hope, R. B.,	*Los Angeles*	10
Hopkins, E. K.,	*San Francisco*	23
Hopkins, H.,	*Los Angeles*	10
Hopkins, J. W.,	*Glendale*	10
Hopkins, M. A.,	*Sacramento*	19
Hopkins, M. F.,	*San Jose*	28
Hopkirk, C. C.,	*Santa Monica*	10
Horn, C. E.,	*San Francisco*	23
Horner, C. D.,	*San Francisco*	23
Horner, H. E.,	*West Los Angeles*	10
Horner, W. D.,	*San Francisco*	23
Horst, W. W.,	*Wilmington*	10
Horton, F. L.,	*Pomona*	10
Horwitz, H.,	*Oakland*	1
Hosford, G. N.,	*San Francisco*	23
Hoskins, G.,	*Long Beach*	10
Hoskins, G. T.,	*Hollywood*	4
Hoskins, H. D.,	*San Diego*	22
Hosmer, C. M.,	*San Diego*	22
Hosmer, M. N.,	*San Francisco*	23
Houck, G. H.,	*Los Angeles*	10
Hough, R. C.,	*San Diego*	22
Houghton, A. D.,	*San Fernando*	10
Houloose, J.,	*Long Beach*	10
House, L. C.,	*El Centro*	6
Houseworth, A. L.,	*Los Angeles*	10
Housman, N. S.,	*San Francisco*	23
Houston, A. J.,	*San Francisco*	23
Houzvicka, O. A.,	*San Diego*	22
Hovde, A. G.,	*Hollywood*	10
Howard, B. F.,	*Sacramento*	19
Howard, C. E.,	*San Diego*	22
Howard, G. R.,	*Bell*	10
Howard, N. J.,	*San Francisco*	23
Howe, R. D.,	*Redwood City*	26
Howell, A. J.,	*Berkeley*	1
Howell, E. H.,	*San Francisco*	23
Howitt, H. O.,	*San Rafael*	11
Howson, C. R.,	*Los Angeles*	10
Hoyt, H. S.,	*Pacific Grove*	14
Hoyt, W. F.,	*Berkeley*	1
Hromadka, A. B.,	*Santa Monica*	10
Hubbard, C. D.,	*Huntington Park*	10
Hubert, C. I.,	*Los Angeles*	10
Huenergardt, A. G.,	*Los Angeles*	10
Huenergardt, H. A.,	*Berkeley*	1
Huff, G. D.,	*San Diego*	22
Huff, L. J.,	*Los Angeles*	10
Huffman, H. G.,	*Santa Ana*	16
Huffman, L. D.,	*Los Angeles*	10
Huggins, W. L.,	*Los Angeles*	10
‡Hughes, E. G.,	*Long Beach*	10
Hughes, R. E.,	*Los Angeles*	23
Hughes, S. E.,	*Los Angeles*	10
Hull, E. H.,	*San Bernardino*	21
Hull, J. P.,	*Stockton*	24
Hull, L. C.,	*Hollister*	20
Hull, R. L.,	*Hollister*	20
Humber, J. D.,	*San Francisco*	23
Hummel, E. M.,	*Talmage*	12
Hummelt, B. W.,	*Nevada City*	17
Humphrey, W. H.,	*Oakland*	1
Humphreys, J. M.,	*Sanger*	4
Hunnicutt, C. C.,	*Los Angeles*	10
Hunnicutt, L. G.,	*Pasadena*	10
Hunsberger, H. S.,	*San Francisco*	23
Hund, H. O.,	*San Rafael*	11
Hunt, R. A.,	*Riverdale*	4
Hunt, R. W.,	*Santa Barbara*	27
Hunt, V. C.,	*Los Angeles*	10
Hunt, W. A.,	*Fresno*	4
Hunt, W. R.,	*Santa Barbara*	27
Hunter, P. M.,	*Pebble Beach*	14
Hunter, T. V.,	*Hollywood*	10
Hunter, W. E.,	*South Gate*	10
Hunter, W. E.,	*Los Angeles*	10
Huntley, A. C.,	*Point Arena*	12
‡Huntington, B. R.,	*Los Angeles*	10
Huntington, H. A.,	*Los Angeles*	10
Hurwitt, S. J.,	*San Francisco*	23
Hurwitz, S. H.,	*San Francisco*	23
Husband, R. D.,	*Modesto*	34
Huston, J. M.,	*Burlingame*	26
Hutchings, R. K.,	*San Francisco*	23
Hutchinson, W. W.,	*Los Angeles*	10
Hutchison, C. W.,	*Los Angeles*	10
Hyde, R. D.,	*Beverly Hills*	10
Hyland, C. M.,	*Los Angeles*	10
Hyman, E.,	*Los Angeles*	10
Hyman, S.,	*Los Altos*	23
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Ianne, C. L.,	*San Jose*	28
Ikl, G. S.,	*Sacramento*	19
Illick, C. R.,	*Santa Paula*	37
Illsley, M. L.,	*Claremont*	10
Imerman, C. P.,	*Hollywood*	10
Imerman, S. W.,	*Hollywood*	10
Imler, H. G.,	*Los Angeles*	10
Ing, C. S.,	*Stockton*	24
Ingalls, A. T.,	*Los Angeles*	10
Ingber, I. S.,	*San Francisco*	23
Ingels, A. E.,	*San Francisco*	23
Ingham, R. O.,	*Colton*	21
Ingham, S. D.,	*Los Angeles*	10
Inghram, H. D.,	*San Bernardino*	21
Ingram, C. H.,	*Fresno*	4
Inman, M. M.,	*Los Angeles*	10
Inman, T. G.,	*San Francisco*	23
Innis, E. C.,	*Newhall*	10
Iriki, W. K.,	*Oakland*	1
Irish, C. W.,	*Los Angeles*	10
Irvine, A. R.,	*Los Angeles*	10
Irvine, R. S.,	*San Francisco*	23
Irwin, J. C.,	*Los Angeles*	10
*Irwin, S. V.,	*Oakland*	1
Isaac, J. P.,	*Glendale*	10
Isnardi, M.,	*San Francisco*	23
Isoard, M. C.,	*Sacramento*	19
Ito, P. K.,	*Los Angeles*	10
Ivey, E. D.,	*Oakland*	1
— J —		
Jackson C. R.,	*No. Little Rock, Ark.*	16
Jackson, E. A.,	*Atwater*	13
Jackson, J. A.,	*Pasadena*	10
Jackson, J. E.,	*Los Angeles*	10
Jackson, L. H.,	*W. Los Angeles*	10
Jacob, H. H.,	*Long Beach*	10
Jacobs, A. M.,	*San Francisco*	23
Jacobs, F. E.,	*San Diego*	22
Jacobs, J.,	*Los Angeles*	10
Jacobs, L. C.,	*San Francisco*	23
Jacobs, L. G.,	*San Francisco*	23
Jacobs, S. N.,	*San Francisco*	23
Jacobson, H. A.,	*Fresno*	4
Jacobson, H. P.,	*Los Angeles*	10
Jacobson, P. N.,	*Oakland*	1
Jacobus, L. R.,	*Berkeley*	1
James, C. A.,	*Fresno*	4
James, C. M.,	*Beverly Hills*	10
James, C. S.,	*Los Angeles*	10
James, L.,	*Fresno*	4
James, M.,	*San Francisco*	23
James, R. J.,	*Los Angeles*	10
James, V. M.,	*Hollywood*	10
Jameson, P. V.,	*Huntington Park*	10
Janes, O. W.,	*Glendale*	10
Jardini, A.,	*Los Angeles*	10
Jeancon, E. C.,	*Los Angeles*	10
Jeffry, D. E.,	*Oakland*	1
Jeffs, M. D. W.,	*Los Angeles*	10
Jelinek, J. J.	*Los Angeles*	10
Jelte, S. A.,	*Oakland*	1
Jenkins, B. E.,	*Oakland*	1
Jenkins, H. L.,	*Arcata*	5
Jenkins, R. B.,	*Los Angeles*	10
Jenney, E. R.,	*Los Angeles*	10
Jenney, W. C.,	*Vacaville*	32
Jennison, J. E.,	*San Diego*	22
Jensen, O. B.,	*Livermore*	1
Jesberg, S.,	*Los Angeles*	10
‡Jetton, J. A.,	*Fallbrook*	22
Jewel, A. R.,	*Los Angeles*	10
Jewel, R. T.,	*Los Angeles*	10
Jewett, R. A.,	*Los Angeles*	10
‡Jimerson, J. R.,	*Long Beach*	10
Johannes, J. C.,	*Santa Cruz*	29
Johnson, A. L.,	*Taft*	7
*Johnson, C. A.,	*Imola*	15
Johnson, C. A.,	*Los Angeles*	10
Johnson, C. E.,	*Long Beach*	10
Johnson, C. F.,	*Oakland*	1
Johnson, C. G.,	*Long Beach*	10
Johnson, C. M.,	*San Francisco*	23
Johnson, C. R.,	*Whittier*	10
Johnson, D. D.,	*Grass Valley*	17
Johnson, E. D. L.,	*Alhambra*	10
Johnson, E. E.,	*Palo Alto*	28
Johnson, E. H.,	*Los Angeles*	10
Johnson, F. T.,	*Monrovia*	10
Johnson, G. M.,	*Los Angeles*	10
Johnson, G. S.,	*San Francisco*	23
Johnson, H. H.,	*San Francisco*	23
Johnson, H. M.,	*Pasadena*	10
Johnson, H. R.,	*Sacramento*	19
Johnson, H. S.,	*Long Beach*	10
Johnson, J. K.,	*Culver City*	10
Johnson, L. C.,	*Salinas*	14
Johnson, M.,	*Los Angeles*	10
Johnson, M. L.,	*Oakland*	1
Johnson, N. P.,	*Stockton*	24
Johnson, O. D.,	*Los Angeles*	10
Johnson, O. F.,	*Sacramento*	19
‡Johnson, P.,	*San Francisco*	23
Johnson, R. H.,	*Los Angeles*	10
Johnson, R. I.,	*Westminster*	16
Johnson, R. L.,	*Corona*	18
Johnson, R. W.,	*San Fernando*	10
Johnson, W. A.,	*Antioch*	3
Johnson, W. C.,	*Pomona*	10
Johnson, W. E.,	*Santa Barbara*	27
Johnson, W. T.,	*Alhambra*	10
Johnston, E. J.,	*South Pasadena*	10
Johnston, F. R.,	*Oakland*	1
Johnston, H. A.,	*Anaheim*	16
Johnston, J.,	*Los Angeles*	10
Johnston, S. T.,	*Santa Ana*	16
Johnston, W. H.,	*Santa Barbara*	27
Johnstone, G. A.,	*Los Angeles*	10
Johnstone, E. M.,	*Pasadena*	10
Johnstone, W. A.,	*Hanford*	8
Jones, A. A.,	*Long Beach*	10
Jones, C. B.,	*Sacramento*	19
Jones, C. P.,	*Grass Valley*	17
Jones, C. R.,	*San Diego*	22
Jones, E. F.,	*Oakland*	1
Jones, E. M.,	*Los Angeles*	10
Jones, E. W.,	*Pasadena*	10
Jones, E. W.,	*Los Angeles*	10
Jones, G. F.,	*San Francisco*	23
Jones, G. W.,	*Los Angeles*	10
Jones, H. T.,	*Los Angeles*	10
Jones, H. W.,	*Bakersfield*	7
Jones, I. H.,	*Los Angeles*	10
Jones, I. W.,	*Los Angeles*	10
Jones, J. P.,	*Los Angeles*	10
Jones, J. R.,	*Sacramento*	19
Jones, J. W.,	*San Francisco*	23
Jones, K. P.,	*Olive View*	10
Jones, L. E.,	*Roseville*	17
Jones, L. L.,	*Glendale*	10
Jones, M. N.,	*San Francisco*	23
Jones, N.,	*Los Angeles*	10
Jones, N.,	*Sacramento*	19
Jones, O. C.,	*Santa Maria*	27
Jones, O. W.,	*San Anselmo*	11
Jones, O. W., Jr.,	*San Francisco*	23
Jones, R. A.,	*San Francisco*	23
Jones, R. B.,	*San Francisco*	23
Jones, R. M.,	*Bakersfield*	7
Jones, R. M.,	*Ventura*	37
Jones, S. C.,	*San Francisco*	23
Jones, W. A.,	*Arlington*	18
Jones, W. H.,	*Long Beach*	10
Jones, W. H. G.,	*Los Gatos*	28
Jones, Z. G.,	*Long Beach*	10
Jordan, P. A.,	*San Jose*	28
Jorgensen, S. N.,	*San Francisco*	23
Jorgenson, N.,	*Fresno*	4
Josephs, I. L.,	*Los Angeles*	10
Josephs, L.,	*Los Angeles*	10
Josephson, J. B.,	*San Jose*	28
Joyce, T. F.,	*Spadra*	10
Judd, G. E.,	*Los Angeles*	10
Judge, W. D.,	*Los Angeles*	10
Judson, H. A.,	*Los Angeles*	10
Juenemann, G. F.,	*Los Angeles*	10
Julien, A. E.,	*Turlock*	34
Jumblatt, A.,	*Pacific Beach*	22
Jump, K.,	*San Mateo*	26
— K —		
Kaarboe, O.,	*San Francisco*	23
Kaelber, A. P.,	*San Francisco*	23
Kaffesleder, L. I.,	*Los Angeles*	10
Kaftan, L. L.,	*Los Angeles*	10
Kahl, C. W.,	*Merced*	13
Kahn, J.,	*Los Angeles*	10
Kahn, M. G.,	*Los Angeles*	10
Kalfus, J. L.,	*Santa Maria*	27
Kalichman, G. S.,	*Santa Monica*	10
Kane, L. M.,	*Los Angeles*	10
Kanner, H. M.,	*Sacramento*	19
Kaplan, H. E.,	*Stockton*	24
Kaplan, N.,	*Los Angeles*	10
Kapp, M. W.,	*San Jose*	28
*Kapp, R. W.,	*San Jose*	28
Kaps, F. O.,	*Santa Ana*	16
Karfiol, G. J.,	*San Francisco*	23
Karr, M.,	*Sonora*	24
Karras, R. W.,	*Milwaukee, Wis.*	10
Karshner, R. G.,	*Los Angeles*	10
Katz, B.,	*Los Angeles*	10
Kaufman, B.,	*San Francisco*	23
Kavanagh, M. F.,	*San Francisco*	23
Kavinoky, N. R.,	*Los Angeles*	10
Kay, G. L.,	*Redding*	30
Kay, M. M.,	*Shafter*	7
Kay, R.,	*Los Angeles*	10
Kay, W. E., Jr.,	*San Francisco*	23

NAME	CITY	COUNTY SOCIETY NO.
Kaysen, R.,	*San Diego*	22
Kearney, F. K.,	*Hayward*	1
Kearney, W. B.,	*San Francisco*	23
Keating, V. J.,	*Los Angeles*	10
Keeler, N. S.,	*Oakland*	1
Keenan, A. S.,	*San Francisco*	23
Keeney, M. J.,	*Los Angeles*	10
Kehoe, E. J.,	*San Mateo*	26
Kehr, E. F.,	*Carmel*	14
Keiper, G. F.,	*Beverly Hills*	10
Keith, C. F.,	*Williams*	38
Kelker, G. D.,	*San Luis Obispo*	25
Kell, F. B.,	*San Bernardino*	21
Keller, F.,	*Los Angeles*	10
Keller, S. H.,	*Riverside*	18
*Kelley, G. A.,	*Bridgeport*	4
Kelley, H. W.,	*Oakland*	1
Kelley, J. W.,	*Los Angeles*	10
Kellogg, E. C.,	*Los Angeles*	10
Kelly, A. L.,	*Oceanside*	22
Kelly, E. E.,	*Pomona*	10
Kelly, T. H.,	*San Francisco*	23
Kelsey, T. W.,	*Sacramento*	19
Kelso, G. C.,	*Pittsburg*	3
Kelso, R. W.,	*Long Beach*	10
‡Kemp, D. H.,	*San Francisco*	23
Kemper, C. A. S.,	*Escondido*	22
Kendall, O. J.,	*San Diego*	22
Kennedy, C. R.,	*Paso Robles*	25
Kennedy, K. E.,	*Oakland*	1
Kennell, L. A.,	*San Diego*	22
Kennicott, R. H.,	*Los Angeles*	10
Kerlan, M.,	*Beverly Hills*	10
Kern, B. C.,	*Jackson*	19
Kerns, C. L.,	*Pittsburg*	3
Kerr, W. J.,	*San Francisco*	23
Kersten, E. H. W.,	*Anaheim*	16
Kersten, H. M.,	*Los Angeles*	10
Keser, M. D.,	*Richmond*	3
Kesling, E. F.,	*Los Angeles*	10
Kessler, E. E.,	*Los Angeles*	10
Key, J. D.,	*El Centro*	6
Key, W. A.,	*San Mateo*	26
Keyes, H. R.,	*Los Angeles*	10
Kibbe, M. E.,	*Oakland*	1
Kibby, S. V.,	*Los Angeles*	10
Kidder, F. W. K.,	*Los Angeles*	10
*Kiefer, H. A.,	*Los Angeles*	10
Kiger, W. H.,	*Los Angeles*	10
Kilbourne, N. J.,	*Los Angeles*	10
Kilcher, C. W.,	*Sacramento*	19
Kilduff, R.,	*Oroville*	2
Kile, R. F.,	*San Francisco*	23
Kilfoy, E. J.,	*Los Angeles*	10
Kilgore, A. M.,	*Hollywood*	10
Kilgore, A. R.,	*San Francisco*	23
Kilgore, E. S.,	*San Francisco*	23
Kilgore, G. L.,	*San Diego*	22
Kimball, T. S.,	*Glendale*	10
Kimberlin, L. O.,	*San Francisco*	23
Kindall, C. E.,	*Los Angeles*	10
Kindall, L. E.,	*Oakland*	1
Kindopp, D. M.,	*Auburn*	17
King, C. S.,	*Los Angeles*	10
King, D. E.,	*San Francisco*	23
King, E. B.,	*Arroyo Grande*	25
King, E. H.,	*Tujunga*	10
King, H. R.,	*Winters*	38
King, J. A.,	*Ojai*	37
King, J. C. E.,	*San Diego*	22
King, J. M.,	*Los Angeles*	10
King, N. C.,	*Los Angeles*	10
King, W.,	*Chico*	2
Kinney, L. C.,	*San Diego*	22
Kinney, M. A. J.,	*Los Angeles*	10
Kinney, P. B.,	*Pasadena*	10
Kindopp, D. M.,	*Colfax*	17
Kinslow, F. A.,	*San Francisco*	23
Kinzer, E. E.,	*South Pasadena*	10
Kirby, J. M.,	*Bakersfield*	8
Kirchner, A. A.,	*Los Angeles*	10
Kirchner, H. J.,	*Los Angeles*	10
Kirchoff, J. J.,	*Los Angeles*	10
Kirk, A. W.,	*San Francisco*	23
Kirk, J. H.,	*Palo Alto*	28
Kirk, M. E.,	*Oakland*	1
Kirkle, O. L.,	*Napa*	15
Kirkpatrick, J. E.,	*Los Angeles*	10
Kirkpatrick, J. H.,	*Los Angeles*	10
Kirkpatrick, J. L.,	*Los Angeles*	10
Kirksey, M. M.,	*San Francisco*	23
Kirsch, R. L.,	*Pasadena*	10
Kirwin, J. J.,	*Ukiah*	12
Kiser, A. E.,	*Imola*	15
Kiskadden, W. S.,	*Los Angeles*	10
Kistinger, W. F.,	*Santa Ana*	16
Kistler, R. H.,	*San Francisco*	23
Kitagawa, K. J.,	*San Francisco*	23
Kitsuda, F. Y.,	*Sacramento*	19
Kittle, W. F.,	*Los Angeles*	10
Kittridge, E. McN.,	*Los Angeles*	10
Kjaerbye, C. P. H.,	*Fresno*	4

NAME	CITY	SOCIETY NO. COUNTY
Klein, I.,	*Los Angeles*	10
Klein, J. M.,	*No. Hollywood*	10
Klick, J. J.,	*Sacramento*	19
Kliman, F. E.,	*Los Angeles*	10
Kling, D. H.,	*Los Angeles*	10
Klotz, N. C.,	*San Francisco*	23
Kluss, E. R.,	*Santa Barbara*	27
Klussman, H. O. G. T.,	*San Francisco*	23
Kneeshaw, R. S.,	*San Jose*	28
Knight, L. C.,	*San Francisco*	23
Knoll, R. F.,	*Los Angeles*	10
Knoph, B. W.,	*Brentwood*	24
Knorp, W. F.,	*Burlingame*	26
Knorr, L. R.,	*Concord*	3
Knox, C. R.,	*El Cajon*	22
Kocher, R. A.,	*Carmel*	14
Koda, K.,	*Watsonville*	29
Koebig, W. C. S.,	*Los Angeles*	10
Koefod, H. O.,	*Santa Barbara*	27
Koehler, A. E.,	*Santa Barbara*	27
Koenecke, H. J,	*Salinas*	14
Koepke, F. H.,	*Watsonville*	29
Koetter, G. F.,	*Los Angeles*	10
Koford, H.,	*Oakland*	1
Kohlenberger, C. F. W.,	*Fullerton*	16
Kohlhase, L. H.,	*Los Angeles*	10
Kohlmoos, H. J.,	*Oakland*	1
‡Kohls, C. L.,	*San Francisco*	23
Kohn, F.,	*Tulare*	36
Kolb, H. J.,	*Oakland*	1
Kolda, F. O.,	*Alhambra*	10
Kolisch, J. M.,	*Los Angeles*	10
Konantz, O. F.,	*Hollywood*	10
Konigmacher, A. H.,	*Fresno*	4
Konttas, P. V.,	*Santa Rosa*	33
Koplin, H.,	*Los Angeles*	10
‡Kopelowitz, J. C.,	*Los Angeles*	10
Korshet, M.,	*San Francisco*	23
Kortheuer, K. H.,	*Calexico*	6
Kosky, A. A.,	*Santa Monica*	10
Kosky, A. W.,	*Santa Monica*	10
Kosterlitz, E.,	*Berkeley*	1
Kracaw, F. C.,	*Oakland*	1
Kraft, R. W.,	*Pasadena*	10
Krahulik, E. J.,	*Hollywood*	10
Kramar, L. G.,	*Fortuna*	5
Krause, R. A.,	*Los Angeles*	10
Kraushaar, J. C.,	*Garden Grove*	16
Kreinman, S. G.,	*Los Angeles*	10
Kremers, E. D.,	*Pasadena*	10
Kress, G. H.,	*Los Angeles*	10
Kretzschmar, K. E.,	*Los Angeles*	10
Kristensen, W. A.,	*Los Angeles*	10
Kreutzmann, H. A. R.,	*San Francisco*	23
Kroener, W. F.,	*Whittier*	10
Kroger, W. P.,	*Los Angeles*	10
Krohn, H. N.,	*Los Angeles*	10
Kroll, F. W.,	*San Francisco*	23
Krout, B. M.,	*Stockton*	24
Krueger, A. P.,	*Berkeley*	1
Krugmeier, C. E.,	*Los Angeles*	10
Krull, F.,	*Sacramento*	19
Kruse, F. H.,	*San Francisco*	23
Kruse, F. L.,	*San Francisco*	23
Kryder, G. B.,	*Glendale*	10
Kuder, W. S.,	*Oakland*	1
Kuhlman, M. B. K.,	*Mid Pines*	1
Kuhlmann, F. W.,	*Long Beach*	10
Kuhn, O. E.,	*Stockton*	24
Kulaev, A. A. M.,	*San Francisco*	23
Kulchar, G. V.,	*San Francisco*	23
Kurtz, C.,	*Los Angeles*	10
Kusel, E. A.,	*Oroville*	2
Kutzmann, A. A.,	*Los Angeles*	10
Kyddson, T. W.,	*Linden*	24

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Lacayo, J. R.,	*Los Angeles*	10
Lacey, J. M.,	*Los Angeles*	10
Lacey, L. E.,	*Oakland*	1
Lacey, M. J.,	*Albany*	1
Lachman, G. S.,	*San Francisco*	23
Lackey, H. J.,	*Oakland*	1
Lackner, L.,	*San Jose*	28
Lacoe, J. R.,	*Los Angeles*	10
Lafontaine, E. C.,	*San Francisco*	23
Lagan, E.,	*San Francisco*	23
Laist, O.,	*San Francisco*	23
Lajoie, R. J.,	*Los Angeles*	10
Lake, T. O.,	*Berkeley*	1
Lakey, W. J.,	*Canoga Park*	10
Lamb, E. J.,	*Santa Barbara*	27
Lamb, L. M.,	*Oakland*	1
‡Lamb, W. K.,	*Berkeley*	1
Lambert, H. W.,	*Oakland*	1
Lambertson, E. R.,	*Los Angeles*	10
Lambuth, R. W.,	*Santa Barbara*	27

NAME	CITY	COUNTY SOCIETY NO.
La Mont, W.,	*Beverly Hills*	10
La Motte, L. A. J.,	*Los Angeles*	10
Lamson, M.,	*Palo Alto*	28
Lamson, R. W.,	*Los Angeles*	10
Lancaster, J. S.,	*Torrance*	10
Landegger, G. P.,	*Los Angeles*	10
Landis, C. C.,	*Chico*	2
¶Lando, H.,	*Los Angeles*	10
Lando, M. E.,	*Oakland*	1
Landon, G. S.,	*San Bernardino*	21
Landrock, G. M.,	*Philadelphia, Pa.*	11
Lane, C. R.,	*Los Angeles*	10
Lane, C. W.,	*Coronado*	22
Lane, E. H.,	*Los Angeles*	10
Lane, J. A.,	*Eureka*	5
Lang, J. H.,	*Fullerton*	16
Langan, A. J.,	*San Pedro*	10
Langdon, E. E.,	*Santa Monica*	10
Langdon, S. W. R.,	*Stockton*	24
Lange, H. W.,	*Bakersfield*	8
Langer, J.,	*Hilt*	31
Langley, R. W.,	*Los Angeles*	10
Langlois, L. J.,	*San Diego*	22
Langnecker, H. L.,	*San Francisco*	23
Langstroth, L.,	*San Francisco*	23
Lanphere, G. H.,	*Los Angeles*	10
Larkey, J.,	*Oakland*	1
Larner, T. E.,	*Marysville*	39
Larsen, A. E.,	*San Francisco*	23
Larsen, E.,	*Los Angeles*	10
Larsen, J. W.,	*Paso Robles*	25
Larsen, L. H.,	*Point Reyes*	11
Larson, A. E.,	*Los Angeles*	10
Larson, A. H.,	*Los Angeles*	10
Larson, C. F.,	*Sausalito*	11
Larson, E. A.,	*Kingsburg*	4
Larson, E. E.,	*Los Angeles*	10
Lartigau, A. J.,	*San Francisco*	23
Lasswell, B. J.,	*Quincy*	9
Laton, G. P.,	*Los Angeles*	10
Latta, S. E.,	*Stockton*	24
Laubersheimer, G. A.,	*Los Angeles*	10
Lauder, C. H.,	*Los Angeles*	10
Lauer, C. A.,	*Long Beach*	10
Laughlin, T. J.,	*Hollywood*	10
Lavery, W. A.,	*Loyalton*	17
Law, C. H.,	*Weaverville*	30
Lawler, P. W.,	*Victorville*	21
Lawler, W. H.,	*Salinas*	14
‡Lawrence, L. B.,	*Oakland*	1
Lawrence, W.,	*San Francosco*	23
Lawson, J. D.,	*Sacramento*	19
Lawson, T. C.,	*Oakland*	1
Lawyer, P. C.,	*Inglewood*	10
Layman, M. H.,	*San Francisco*	23
Lazard, E. M.,	*Los Angeles*	10
Lazelle, H. G.,	*La Jolla*	22
Leach, C. W.,	*Kelseyville*	12
Leach, W. O.,	*Glendale*	10
Leachman, R. S.,	*Vallejo*	32
Leake, N. A.,	*Torrance*	10
Leake, W. H.,	*Los Angeles*	10
Leavitt, A. S.,	*Los Angeels*	10
Leavitt, F. J.,	*Los Angeles*	10
Le Baron, R. O.,	*Talmage*	12
Ledford, R. M.,	*San Diego*	22
Ledyard, C. C.,	*Los Angeles*	10
Lee, D.,	*San Jose*	28
Lee, E. C.,	*San Diego*	22
Lee, F. J.,	*Santa Monica*	10
Lee, F. W.,	*Sacramento*	19
Lee, H.,	*San Jose*	28
Lee, L. H.,	*Los Angeles*	10
Lee, R. V. A.,	*Palo Alto*	28
Leef, E.,	*San Francisco*	23
Leet, N. B.,	*Oakland*	1
Leet, R. S.,	*Oakland*	1
Leete, C. M.,	*Pasadena*	10
Leffingwell, F. E.,	*Montebello*	10
Lefler, A. B.,	*Los Angeles*	10
Leftwich, O. T.,	*Oakland*	1
Legge, R. T.,	*Berkeley*	1
Leggitt, R. C.,	*Glendale*	10
Leggo, R. C.,	*Crockett*	3
Leidig, L. R.,	*Los Angeles*	36
Leimbach, J. H.,	*Isleton*	18
Leland, H. G.,	*Klamath*	5
Leland, S.,	*San Francisco*	23
Lemere, H. B.,	*Beverly Hills*	10
Lenker, W. D.,	*San Bernardino*	21
Lennon, M. B.,	*San Francisco*	23
Lennon, T. J.,	*San Francisco*	23
Leon, T. D.,	*Concord*	3
Leonard, A. T.,	*San Francisco*	23
Leonard, E. M.,	*San Francisco*	23
Leonard, J. V.,	*San Francisco*	23
Leonard, W. E.,	*Los Angeles*	10
Lepper, L. E.,	*Los Angeles*	10
Lerned, M. B.,	*Pasadena*	10
Lesem, A. M.,	*San Diego*	22
Lettice, F. E.,	*Los Angeles*	10
Leuschner, C. E.,	*Los Angeles*	10

NAME	CITY	COUNTY SOCIETY NO.
Levin, H. A.	*Los Angeles*	10
Levin, W. N.	*Avenal*	4
Levison, C. G.	*San Francisco*	23
Levitin, J.	*San Francisco*	23
Leviton, H. I.	*Los Angeles*	10
Levy, E. I.	*San Diego*	23
Levy, J. J.	*Los Angeles*	4
Levy, M. L.	*Los Angeles*	10
Lewe, G. H.	*Los Angeles*	10
Lewis, C. E.	*Auburn*	17
Lewis, C. H.	*Santa Monica*	10
Lewis, E. R.	*Los Angeles*	10
Lewis, J. D.	*Santa Barbara*	27
Lewis, K.	*Beverly Hills*	10
Lewis, L. R.	*Los Angeles*	10
Lewis, M. L.	*Petaluma*	33
Lewis, N. H.	*Hollywood*	10
Lewis, S. A.	*Hollywood*	10
Libby, A. A.	*Pasadena*	10
Liddell, E. B.	*Los Angeles*	10
Lien, F. O.	*Merced*	13
Liles, L. M.	*Watsonville*	29
Liliencrantz, G. H.	*Oakland*	1
Liljedahl, E. N.	*Los Angeles*	10
Liljencrantz, E.	*San Francisco*	1
Lilley, W. E.	*Merced*	13
Linde, F. G.	*San Francisco*	23
Lindberg, A. L.	*Los Angeles*	10
Lindberg, A. W.	*Los Angeles*	10
Lindemulder, F. G.	*San Diego*	22
Lindenberg, F.	*Los Angeles*	10
Lindquist, C. A.	*Los Angeles*	10
†Lindroth, E.	*Long Beach*	10
Lindsay, C. V.	*Encinitas*	22
Lindsay, H. C. L.	*Pasadena*	10
Lindsay, W. K.	*Sacramento*	19
‡Lindsey, J. O.	*Los Angeles*	10
Lindsley, St. C. R.	*Los Angeles*	10
Lineer, A. S.	*Los Angeles*	10
Linhart, L. R.	*Los Angeles*	10
Linn, J. L.	*Glendale*	10
Linthicum, F. H.	*Los Angeles*	10
Lipkis, A.	*Los Angeles*	10
Lipp, M. J.	*Sacramento*	19
Lippman, M. H.	*San Francisco*	23
Lipsett, E. M.	*San Francisco*	23
‡Lipsett, P. J.	*Oakland*	1
Lipson, B.	*Los Angeles*	10
Lipson, I. M.	*Visalia*	36
Lischner, H.	*Los Angeles*	10
Lisser, H.	*San Francisco*	23
Lissner, H. H.	*Los Angeles*	10
Lista, L. J.	*San Francisco*	31
Liston, E.	*Palo Alto*	28
Litchfield, H.	*Los Angeles*	10
Litle, E. W.	*Los Angeles*	10
Little, R. P.	*Santa Paula*	37
Lobingier, A. S.	*Los Angeles*	10
Lockwood, M. S.	*National City*	22
Lodge, E. S.	*Los Angeles*	10
Loe, H. D.	*Oakland*	1
Loehr, B. E.	*San Jose*	28
Logan, N. H.	*Oakland*	1
Logsdon, R. O.	*San Diego*	22
Lohmann, H. G.	*Oakland*	1
Lohse, J. L.	*Oakland*	1
Loizeaux, E. S.	*San Diego*	22
Lokrantz, S. R.	*Los Angeles*	10
Lonergan, L.	*Loma Linda*	21
Long, F. E.	*Los Angeles*	10
Long, H. E.	*Berkeley*	1
Long, S. C.	*Bakersfield*	7
Loomis, F. M.	*Oakland*	1
Loomis, N. M.	*Yuba City*	39
Loos, H. C.	*Los Angeles*	10
Looser, R. V.	*Hollywood*	10
Lopez, E. A.	*San Leandro*	1
Lopizich, I. J.	*Los Angeles*	10
Lord, D. C.	*Paradise*	2
Lordan, J. P.	*Los Angeles*	10
Lorentz, R., Jr.	*San Francisco*	23
Lorenz, H. E.	*Sacramento*	19
Loring, F. W.	*Glendale*	10
Loughlin, E. L.	*Los Angeles*	10
Lounsberry, C. R.	*San Diego*	22
Loutzenheiser, J. J.	*San Francisco*	23
Love, A. A.	*Los Angeles*	10
Love, C. A., Jr.	*San Bernardino*	21
Love, E. C.	*Calistoga*	15
Lovejoy, E. D.	*Los Angeles*	10
Lovely, J. P.	*San Jose*	28
Loveren, G. S.	*Santa Barbara*	27
Low, T. C.	*Los Angeles*	10
Lowe, F. A.	*San Francisco*	23
Lowman, C. L. R.	*Los Angeles*	10
Lloyd-Jones, O.	*Los Angeles*	10
Lubin, M. L.	*San Francisco*	23
Lucas, W.	*Los Angeles*	10
Lucas, W. P.	*San Francisco*	23
Lucas, W. S.	*Richmond*	3
Lucey, D. D.	*Los Angeles*	10
Luckie, J. B.	*Pasadena*	10
Luechauer, K. D.	*Fresno*	4
Lum, D. D.	*Alameda*	1
Lum, P. A.	*Carmel*	14
Lumley, C. G.	*Huntington Park*	10
Lumsden, A. G.	*Petaluma*	33
Lund, Le V.	*Los Angeles*	10
Lundegaard, E. E.	*Weimar*	17
Lundegaard, E. M.	*Oakland*	1
Lundquist, D. T.	*Palo Alto*	28
Lunsford, C. J.	*Oakland*	1
Lupton, E. L.	*Los Angeles*	10
Lurie, S. A.	*Los Angeles*	10
Lusignan, H. R.	*Monterey*	14
Luton, G. R.	*Santa Barbara*	27
Lyle, A. G.	*San Francisco*	23
Lyman, G. D.	*San Francisco*	23
Lyman, T.	*Sacramento*	19
Lynch, D. A.	*Omaha, Nebraska*	10
*Lynch, E. C.	*Montebello*	10
Lynch, F. W.	*San Francisco*	23
Lynch, W. P.	*Stockton*	24

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Mabee, M.	*Santa Ana*	16
MacBeth, W. L. C.	*El Monte*	10
MacColl, D. R.	*Los Angeles*	10
MacCoy, W. E.	*Ventura*	37
MacCracken, W. B.	*Berkeley*	1
MacDonald, F. A.	*Sacramento*	19
MacDonald, R. P.	*Los Angeles*	10
Mace, L. S.	*San Francisco*	23
Macfarlane, D. A.	*Berkeley*	1
Mack, A. E.	*Glendale*	10
Mack, C. W.	*Livermore*	1
MacKay, C. H.	*Los Angeles*	10
Mackay, J. G.	*Auburn*	17
Mackenzie, W. W.	*Hollywood*	10
Mackey, J. G.	*San Fernando*	10
MacKinnon, D. S.	*W. Los Angeles*	10
Macklin, R. K.	*Pasadena*	10
MacLafferty, N. C.	*Soquel*	29
MacLean, H. G.	*Oakland*	1
MacLean, J.	*Los Angeles*	10
Macleish, A. C.	*Los Angeles*	10
Maclennan, A. L.	*Pasadena*	10
MacMillan, D. W.	*Los Angeles*	10
MacMillan, H. A.	*Long Beach*	10
Macomber, E. B.	*Burlingame*	26
Macomber, H. W.	*Burlingame*	26
Macpherson, D. G.	*San Francisco*	23
Macpherson, F. L.	*San Diego*	22
Macpherson, J. D.	*San Diego*	22
Macpherson, W. E.	*Loma Linda*	21
*MacRae, A. D.	*San Francisco*	23
*Madden, T. F.	*Fresno*	4
Madsen, L. J.	*Santa Monica*	10
Magan, P. T.	*Los Angeles*	10
Magan, W. P.	*Covina*	10
Magee, H. R.	*Los Angeles*	10
Maghy, C. A.	*Los Angeles*	10
Maginn, E. F.	*Los Angeles*	10
Magoon, L. B.	*San Jose*	28
Magrath, W. A. S.	*Oakland*	1
Mahan, L. B.	*San Diego*	22
Mahon, E. J.	*San Francisco*	23
Mahoney, L. E.	*Santa Monica*	10
Main, R. C.	*Santa Barbara*	27
Maisler, S.	*San Francisco*	23
Majer, R. G.	*Los Angeles*	10
Majors, E. A.	*Oakland*	1
‡Maker, R. W.	*Norwalk*	10
Makinson, F. R.	*Oakland*	1
Malcolmson, O. K.	*Hynes*	10
Malis, S.	*Los Angeles*	10
Malkin, G. M.	*Huntington Park*	10
Mallery, J. H.	*Trail, Oregon*	22
Malmgren, G. E.	*Los Angeles*	10
Malone, M. C.	*San Francisco*	23
Malone, W. M.	*San Francisco*	23
Maloney, H. P.	*Oakland*	1
Maloney, W. M.	*Los Angeles*	10
Mandel, G.	*Los Angeles*	10
Maner, G. D.	*Los Angeles*	10
Mangan, L. A.	*Wilmington*	10
Mangan, P. J.	*San Francisco*	23
Mann, H. H.	*Los Angeles*	10
Mann, V. L.	*Philadelphia, Pa*	10
Mannerstedt, G.	*Oakland*	1
Manning, T. P.	*Los Angeles*	10
Manning, W. R.	*Fillmore*	37
Manny, M. A.	*Pasadena*	10
Mansfeldt, J. H.	*San Francisco*	23
Manson, G.	*Fresno*	4
Manson, R. M.	*Hayward*	1
Mantle, V. M.	*Los Angeles*	10
Manton, W. W.	*Pasadena*	10
Manuel, M. M.	*Pasadena*	10
March, H. N.	*Grass Valley*	17
Marchildon, J. W.	*Los Angeles*	10
‡Marcus, D.	*Winterhaven*	6
Marcus, H.	*San Francisco*	23
Marcus, S. M.	*Los Angeles*	10
Mardis, B. A.	*San Francisco*	23
Mark, A. E.	*Hollywood*	10
Markel, H. H.	*San Francisco*	23
Markolf, H. F.	*Pasadena*	10
Marks, J. H.	*Los Angeles*	10
Marks, M.	*Long Beach*	10
Marks, S. H.	*Pittsburg*	3
Markthaler, E. L.	*Santa Barbara*	27
Marmor, W. A.	*St. Louis, Mo*	10
Marnell, F. S.	*Stockton*	24
Maroon, J. L.	*Santa Ana*	16
Marquis, C. E.	*Oakland*	1
Marr, J. B.	*Covina*	10
Marsden, C. S.	*San Diego*	22
Marsden, S. A.	*Santa Ana*	16
Marsh, C.	*Sebastopol*	33
Marsh, O. G.	*San Diego*	22
Marshall, B. M.	*Eureka*	5
Marshall, H. K.	*Glendale*	10
Marshall, J. M.	*San Luis Obispo*	25
Marshall, O. C.	*Watsonville*	29
Marston, C. B.	*San Rafael*	11
Marston, H. E.	*San Rafael*	11
Martell, B. S.	*Santa Ana*	16
Martin, A. T.	*Los Angeles*	10
Martin, G. S.	*Susanville*	9
Martin, H. W.	*Los Angeles*	10
‡Martin, J. J.	*Long Beach*	10
Martin, J. P.	*Oakland*	1
Martin, L. A.	*Berkeley*	1
Martin, L. E.	*Los Angeles*	10
Martin, M. L.	*Los Angeles*	10
Martin, P. T.	*San Jose*	28
Martin, R. C.	*San Francisco*	23
Martin, R. C.	*San Bernardino*	21
Martine, A.	*La Jolla*	22
Martins, S. M.	*Los Angeles*	10
Martyn, G.	*Los Angeles*	10
Marx, R.	*Los Angeles*	10
‡Marxer, W. L.	*Beverly Hills*	10
Marxmiller, H. G.	*Los Angeles*	10
Mason, B. B.	*Laguna Beach*	16
Mason, B. S.	*San Jose*	28
Mason, C. V.	*Livermore*	1
Mason, H. M.	*Los Angeles*	10
Mason, M. I.	*San Jose*	28
Mason, V. R.	*Los Angeles*	10
Massey, B. D.	*Pasadena*	10
Masters, E. J.	*San Francisco*	23
Masterson, J. R.	*Berkeley*	1
Mathé, C. P.	*San Francisco*	23
Mather, R. W.	*Los Angeles*	10
Mathes, M. E.	*San Francisco*	23
Mathews, S. S.	*Los Angeles*	10
Mathewson, C.	*Fresno*	4
Mathewson, C., Jr.	*San Francisco*	23
Mathias, C. M.	*Tulare*	36
Mathiasen, H.	*Baltimore, Md*	1
Matlock, T. T.	*Wasco*	7
Matousek, W. J.	*Glendale*	10
‡Matson, J. R.	*San Diego*	22
*Matsumura, K.	*San Francisco*	23
Mattison, C. W.	*Los Angeles*	10
Mattison, S. J.	*Pasadena*	10
Matzger, E.	*San Francisco*	23
Maupin, J. L., Jr.	*Fresno*	4
Mawdsley, H. L.	*San Mateo*	26
Maxson, E. S.	*Alhambra*	10
Maxwell, A. H.	*Sausalito*	11
Maxwell, R. E.	*Modesto*	34
May, H. C.	*Los Angeles*	10
May, J. A.	*San Diego*	22
May, L. B.	*Bakersfield*	7
Mayer, H. J.	*Los Angeles*	10
Mayers, M. M.	*Los Angeles*	10
Mayfield, C.	*Long Beach*	10
Mayman, E.	*Modesto*	34
Maynard, M. T-R.	*San Jose*	28
Mays, A. H.	*Sausalito*	11
McAllister, H. R.	*Taft*	7
McAllister, O. O. T.	*Oakland*	1
McAnally, J. F.	*Roseville*	17
McArthur, D. D.	*Los Angeles*	10
McArthur, P. R.	*Los Angeles*	10
McAtee, J. S.	*Los Angeles*	10
McAuley, J.	*Santa Ana*	16
McBride, R. W.	*Burlingame*	26
¶McBurney, B. A.	*Pomona*	10
McBurney, R. D.	*Los Angeles*	10
McCallister, C. H.	*Los Angeles*	10
McCann, D. F.	*Bemidji, Minn*	31
McCann, F. E.	*Monrovia*	10
McCarthey, A. M.	*Los Angeles*	10
McCarthy, F. J.	*San Francisco*	23
McCarthy, H. L.	*Los Angeles*	10
McCarthy, J. B.	*Carmel*	14
McCartney, O. D.	*Glendale*	10
McCarty, H.	*Agnew*	28

NAME	CITY	COUNTY SOCIETY NO.
McCarty, R. B.	*Riverside*	18
‡McCausland, A. M.	*Los Angeles*	10
McCausland, W. S.	*Chula Vista*	22
McChesney, G. J.	*San Francisco*	23
McCleave, T. C.	*Berkeley*	1
‡McCleave, T. C., Jr.	*Oakland*	1
McClelland, E. S.	*Los Angeles*	10
McClendon, S. J.	*San Diego*	22
McClure, G.	*Oakland*	1
McClure, J. C.	*Lindsay*	36
McClure, J. L.	*San Francisco*	23
McClurkin, A. A.	*Los Angeles*	10
McColl, J. M.	*San Diego*	22
McColl, W. F.	*San Diego*	22
McCombs, V. J.	*Los Angeles*	10
McConnell, J. B.	*San Diego*	22
McConnell, O. G.	*San Jose*	28
McCool, J. L.	*San Francisco*	23
McCool, W. F.	*Los Angeles*	10
McCoskey, G.	*Stockton*	24
McCoy, C. A.	*Los Angeles*	10
McCoy, E. T.	*Los Angeles*	10
McCoy, H. H.	*Long Beach*	10
McCracken, J. H.	*San Pedro*	10
McCradie, R. D.	*Oakland*	1
McCrea, F. R.	*Long Beach*	10
McCue, J. E.	*Crows Landing*	34
McCullough, F. E.	*Berkeley*	1
McCullough, J. M.	*Crockett*	3
McCuskey, C. F.	*Los Angeles*	10
McDonald, A. C.	*Huntington Park*	10
McDonald, J.	*San Francisco*	23
McDonnell, C. H.	*Sacramento*	19
McDowell, B. E.	*Merced*	13
McDowell, C. A.	*Covina*	10
McElhinney, P. P. B.	*Long Beach*	10
McEvers, A. E.	*Los Angeles*	10
McFarlane, A. H.	*Mountain View*	28
McGarvey, H.	*Atascadero*	25
McGavack, T. H.	*San Francisco*	23
McGee, R. P.	*Los Angeles*	10
McGehee, W. H.	*Fresno*	4
McGibbon, D.	*Los Angeles*	10
McGill, P. R.	*Hollywood*	10
McGinnis, J. J.	*New York*	23
McGinty, A. T.	*San Jose*	28
McGovney, R. B.	*Santa Barbara*	27
McGranahan, J. H.	*Long Beach*	10
McGrath, A. K.	*Sonoma*	15
‡McGreane, F. X.	*Calistoga*	15
‡McGrew, W. R.	*Oakland*	1
McGuire, F. A.	*Stockton*	24
McGuire, J. B.	*Mt. Shasta*	31
McGuire, J. J.	*San Francisco*	23
McGuire, T. E.	*Burbank*	10
McGurk, R. T.	*Stockton*	24
McHugh, J. A.	*Stockton*	24
McHugh, P. H.	*Stockton*	24
McHugh, T. R.	*Los Angeles*	10
McIntosh, A. M.	*Berkeley*	1
McKee, C. B.	*Sacramento*	19
McKee, E. N.	*Eagle Rock*	10
McKee, K. S.	*Bakersfield*	7
McKee, W. C.	*Los Angeles*	10
McKeehan, G. O.	*Los Angeles*	10
McKeever, F. M.	*Los Angeles*	10
McKellar, J. H.	*Pasadena*	10
McKelvy, R. W.	*Los Angeles*	10
McKenna, W. J.	*Los Angeles*	10
McKenney, A. C., Jr.	*San Francisco*	23
McKenney, J. A.	*Oakland*	1
McKenney, P. W.	*Alturas*	9
McKenzie, C. R.	*Oakland*	1
McKenzie, R. B.	*San Francisco*	23
McKibbin, J.	*Los Angeles*	10
McKinnon, A. A.	*Placerville*	19
McKinnon, D. D.	*Los Angeles*	10
McKnight, W. B.	*Portola*	9
McLain, L. C.	*Bakersfield*	7
McLaughlin, R. C.	*Los Angeles*	10
McLaughlin, T. H.	*Hollywood*	10
McLean, D.	*Sacramento*	19
McLeish, A. H.	*Yountville*	15
McLellan, G. H.	*San Diego*	22
McLeod, F. L.	*Los Angeles*	10
McLeod, J. H.	*Santa Rosa*	33
McManus, F. P.	*Esparto*	38
McMaster, P. E.	*Los Angeles*	10
McMeekin, H. R.	*Lynwood*	10
McMillan, E. H.	*Pasadena*	10
McMurdo, P. F.	*San Francisco*	23
McMurtry, M. S.	*Clovis*	4
McNab, T. R.	*Los Angeles*	10
McNamara, D. H.	*Santa Barbara*	27
*McNamara, T. M., Jr.	*Bakersfield*	7
McNaught, J. B.	*San Francisco*	23
McNaught, R. C.	*San Francisco*	23
McNeil, D.	*Sacramento*	19
McNeil, H. G.	*Los Angeles*	10
McNell, W. T.	*Stockton*	24
McNelle, L. G.	*Los Angeles*	10
McNelle, O. M.	*Los Angeles*	10

NAME	CITY	COUNTY SOCIETY NO.
McNulty, A. H.	*San Francisco*	23
McPharlin, J. H.	*Salinas*	14
McPhee, V. C.	*San Francisco*	23
McPheeters, E. R.	*Modesto*	34
McPherson, M. D.	*Santa Cruz*	29
McQuade, J.	*San Francisco*	23
McRae, C. C.	*San Francisco*	23
McReynolds, R. P.	*Los Angeles*	10
McVicker, H. R.	*Weed*	31
McWhirter, W. L.	*Centerville*	1
McWhorter, P.	*Beverly Hills*	10
Mead, C. I.	*Bakersfield*	7
Meade, F. J.	*Los Angeles*	10
Meads, A. M.	*Oakland*	1
Meals, R. W.	*Los Angeles*	10
Means, P. C.	*Santa Barbara*	27
Medigovich, D. V.	*Phoenix, Ariz.*	10
Meherin, J. M.	*San Francisco*	23
Mehlin, G. B.	*San Diego*	22
Mehrmann, H. B.	*Oakland*	1
Meininger, W. M.	*San Francisco*	23
Meland, O. N.	*Los Angeles*	10
Melkonian, L.	*Gilroy*	28
Mellinger, W. J.	*Santa Barbara*	27
Melnick, L. I.	*Los Angeles*	10
‡Melnik, M.	*Los Angeles*	10
Mendelsohn, L.	*Saratoga*	28
Meneray, P. A.	*Santa Rosa*	33
Mensor, M. C.	*San Francisco*	23
Mentzer, M. J.	*San Francisco*	23
Mentzer, S. H.	*San Francisco*	23
Meredith, H. H.	*Oakland*	1
Merkle, H. J.	*Los Angeles*	10
Merrill, B. E.	*Oakland*	1
*Merrill, E. R.	*Santa Barbara*	27
‡Merrill, H. G.	*San Diego*	22
Merrill, H. P.	*Los Angeles*	10
Merrill, J. A.	*Monterey*	14
Merrill, R. E.	*Burbank*	10
Merrill, W. I.	*Campbell*	28
Merrithew, E. W.	*Martinez*	3
‡Mesirow, M. E.	*Santa Maria*	27
Mettier, S. R.	*San Francisco*	23
Meuser, A. H.	*Corning*	35
Meyenberg, W. D.	*Salinas*	14
Meyer, A. J.	*Glendale*	10
Meyer, H.	*San Francisco*	23
Meyer, W. F.	*San Diego*	22
Meyers, E. L.	*Chico*	2
Meyers, E. M.	*Oakland*	1
Michael, L.	*San Leandro*	1
Michael, P. P.	*Oakland*	1
Michelson, L.	*San Francisco*	23
Michelson, P. D.	*San Francisco*	23
Mikels, B. M.	*Long Beach*	10
Mikels, F. M.	*Palms*	10
Miles, R. H.	*Alameda*	1
Miles, S. H.	*Olive View*	10
Miles, W. L.	*Los Angeles*	10
Milholland, W. G.	*Fresno*	4
Miller, A.	*San Rafael*	11
Miller, A. V.	*Porterville*	36
Miller, A. W.	*Riverside*	18
Miller, C. D.	*Glendale*	10
Miller, C. M., Jr.	*Olive View*	10
Miller, D. G.	*Los Angeles*	10
Miller, E. P.	*Riverside*	18
Miller, F. F.	*San Diego*	22
Miller, F. P.	*Los Angeles*	10
Miller, F. W.	*Los Angeles*	10
Miller, H.	*Los Angeles*	10
Miller, H. A.	*Alameda*	1
Miller, H. A.	*Los Angeles*	10
Miller, H. E.	*San Francisco*	23
Miller, H. R.	*Chino*	21
Miller, I. S.	*Colton*	21
Miller, J. E.	*Los Angeles*	10
Miller, J. J., Jr.	*San Francisco*	23
Miller, L. G.	*Imola*	15
Miller, N.	*Porterville*	36
Miller, P. D.	*Dinuba*	36
Miller, R. B.	*Glendale*	10
Miller, R. F.	*Los Angeles*	10
Miller, R. R.	*Pasadena*	10
Miller, R. W.	*Los Angeles*	10
Miller, S. J.	*Long Beach*	10
Miller, T.	*San Diego*	22
Miller, T. K.	*Patton*	21
Miller, W. J.	*Los Angeles*	10
Miller, W. McC.	*Auburn*	17
Milliken, W. P.	*Oakland*	1
Mills, L.	*Los Angeles*	10
Mills, W.	*Oakland*	1
‡Mills, W. W.	*San Mateo*	26
Millspaugh, W. P.	*Los Angeles*	10
Millzner, R. J.	*San Francisco*	23
Milo, H. W.	*Mountain View*	28
Milton, J. T.	*San Diego*	22
Minaker, A. J.	*San Francisco*	23
Miner, L. L.	*Los Angeles*	10
Minna, J. B.	*Boston, Mass.*	6
Misch, H. B.	*Los Angeles*	10

NAME	CITY	COUNTY SOCIETY NO.
Missall, A. S.	*Santa Maria*	27
Missner, F. R.	*Oakland*	1
Mitchell, C. O.	*Fresno*	4
Mitchell, H. H.	*Oakland*	1
Mitchell, W. E.	*Berkeley*	1
Mizel, M. L.	*San Francisco*	23
Mizener, M.	*Southgate*	10
Mock, D. C.	*Redlands*	21
Modern, F. S.	*Los Angeles*	10
Moes, R. J.	*Los Angeles*	10
Moffat, W. McK.	*Santa Barbara*	27
Moffitt, E. J.	*Los Angeles*	10
Moffitt, H. C.	*San Francisco*	23
Moffitt, T. W.	*Hollywood*	10
Mogan, R. F.	*Los Angeles*	10
Mohs, O. K.	*San Francisco*	23
Mohun, C. C., Jr.	*San Francisco*	23
Mohun, M.	*San Mateo*	26
Molgaard, J.	*San Francisco*	26
Molitor, N.	*San Diego*	22
Mollath, A. L.	*Guadalupe*	27
Molony, W. R.	*Los Angeles*	10
Molony, W. R., Jr.	*Los Angeles*	10
Monaco, S. R.	*Los Angeles*	10
Monson, L. P.	*San Francisco*	23
Montalvan, J.	*Oakland*	1
Monteith, R. F.	*Redwood City*	26
Montgomery, C. H.	*Los Angeles*	10
Montgomery, D. W.	*San Francisco*	23
Montgomery, J. L.	*Mondovi, Wis.*	10
Montgomery, M. F.	*San Francisco*	23
Montgomery, M. L.	*San Francisco*	23
Montgomery, R. R.	*Long Beach*	10
Montgomery, W. O.	*San Francisco*	23
Monty, A. J.	*San Jose*	28
Moodie, A. R.	*Taft*	7
Moody, A. M.	*San Francisco*	23
Moody, E. E.	*Los Angeles*	10
Mooney, H. S.	*Los Angeles*	10
Moor, F. B.	*Loma Linda*	21
Moore, A. H.	*Los Angeles*	10
Moore, A. W.	*Los Angeles*	10
Moore, C. B.	*San Francisco*	23
Moore, C. E.	*San Jose*	28
Moore, E. C.	*Los Angeles*	10
Moore, G.	*Oakland*	1
Moore, G. W.	*Los Angeles*	10
Moore, H. A.	*Berkeley*	1
Moore, J. B.	*Fresno*	4
Moore, J. K.	*Los Angeles*	10
Moore, L.	*San Francisco*	23
Moore, L. S.	*San Jose*	28
Moore, M. H.	*Fresno*	4
Moore, N. L.	*Santa Ana*	16
Moore, O. M.	*Bell*	10
Moore, P. H.	*Hollywood*	10
Moore, R.	*Los Angeles*	10
Moore, T. V.	*San Jose*	28
Moore, W. G.	*San Francisco*	23
Moore, W. H.	*Bakersfield*	7
Moose, R. M.	*San Bernardino*	21
Moreland, J. W.	*San Bernardino*	21
Morgan, F. R.	*Van Nuys*	10
Morgan, J. D., Jr.	*Fresno*	4
Morgan, J. W.	*San Francisco*	23
Morgan, M. D.	*San Francisco*	23
Morison, C. C.	*Oakland*	1
Morris, B. G.	*Indio*	18
Morris, C. A.	*Bakersfield*	7
Morris, C. L.	*Eagle Rock*	10
Morris, E.	*Auberry*	4
Morris, F. J.	*Los Angeles*	10
Morris, G. H.	*Santa Maria*	27
Morris, J. K., Jr.	*Modesto*	34
Morris, K. G.	*Petaluma*	33
Morris, L. M.	*San Francisco*	23
Morris, M.	*San Francisco*	23
Morris, R. H.	*San Francisco*	23
Morris, R. L.	*San Francisco*	23
Morrison, A. A.	*Santa Paula*	37
Morrison, L. F.	*San Francisco*	23
Morrison, N. D.	*San Mateo*	26
Morrison, R. J.	*Santa Monica*	10
Morrison, W. A.	*Los Angeles*	10
Morrissey, E. J.	*San Francisco*	23
‡Morrow, A.	*Richmond*	3
Morrow, H.	*San Francisco*	23
Morse, C. O.	*Redwood City*	26
Morse, D. L.	*San Francisco*	23
Morse, H. A.	*Oakland*	1
Mortensen, E. S.	*Santa Monica*	10
Mortensen, J. P.	*Los Angeles*	10
Mortensen, W. L.	*Culver City*	10
Mortensen, W. S.	*Santa Monica*	10
Morton, A. W.	*San Francisco*	23
Morton, D. G.	*San Francisco*	23
Morton, L. B.	*Los Angeles*	10
Mosby, G.	*Oakland*	1
Mosher, W. F.	*Ventura*	37
Mote, C. D.	*San Francisco*	23
Motheral, R.	*Hanford*	38
Motley, E. G.	*Santa Ana*	16

NAME	CITY	COUNTY SOCIETY NO.
Mott, E. L.,	*Fresno*	4
Mottram, L. D.,	*Modesto*	34
Moulton, D. H.,	*Chico*	2
‡Moulton, R. R.,	*San Mateo*	26
Mountford, G. T.,	*Coalinga*	4
Movitt, S. I.,	*Los Angeles*	10
Movius, C. McK.,	*Los Angeles*	10
Movius, H. J.,	*Los Angeles*	10
Moyle, C. A.,	*Merced*	13
Muckleston, H. S.,	*Los Angeles*	10
Mudd, J. L.,	*Merced*	13
Mudd, S. G.,	*San Marino*	10
Mueller, R. R.,	*Los Angeles*	10
Mugford, I. K.,	*Sacramento*	19
Mugler, F. R.,	*San Luis Obispo*	25
Muhl, A. M.,	*San Diego*	22
Muir, J. C.,	*San Jose*	28
Mulder, E. I.,	*Compton*	10
Mulfinger, C. L.,	*Los Angeles*	10
Mullaly, E. F.,	*Vallejo*	32
Mullen, E. W.,	*Agnew*	28
Mullen, J. L.,	*Sacramento*	19
Mullen, T. F.,	*San Francisco*	23
Mulligan, H. R.,	*Hollywood*	10
Mulvehill, W.,	*Los Angeles*	10
Mundall, B. P.,	*Glendale*	10
Munter, E. J.,	*San Francisco*	23
Murakami, K.,	*Salinas*	14
‡Muramoto, J.,	*Sacramento*	19
Murphy, H. C.,	*Salinas*	14
Murhpy, J. B.,	*San Mateo*	26
Murphy, J. E.,	*Sacramento*	19
Murphy, P. J.,	*Los Angeles*	10
Murphy, W. H.,	*San Mateo*	26
Murray, D. H.,	*Napa*	15
Murray, S.,	*Los Angeles*	10
Murrieta, A. J.,	*Los Angeles*	10
Musante, A. S.,	*San Francisco*	23
Musser, L. P.,	*Oakland*	1
‡Myers, A. D.,	*Loma Linda*	21
Myers, C.,	*Los Angeles*	10
Myers, G. E.,	*Los Angeles*	10
Myers, L.,	*San Diego*	22
Myers, O. R.,	*Eureka*	5
Myers, T. C.,	*Los Angeles*	10
Mythaler, E. L.,	*Ahwahnee*	13

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NAME	CITY	COUNTY SOCIETY NO.
Naeckel, H. W.,	*Riverside*	18
Naffziger, H. C.,	*San Francisco*	23
Nagel, G. W.,	*San Francisco*	23
Nagelman, C. B.,	*Santa Barbara*	27
*Nahman, A. H.,	*San Francisco*	23
Napheys, W. D.,	*Los Angeles*	10
Nass, F. C.,	*San Francisco*	23
Nasser, G. E.,	*San Francisco*	23
Natzler, A.,	*Los Angeles*	10
Naughton, J. P.,	*Los Angeles*	10
Neal, J. R.,	*Los Angeles*	10
Neff, F. E.,	*Compton*	10
Negley, J. C.,	*Los Angeles*	10
‡Neighbor, J. W.,	*Arrowhead Springs*	21
Neil, J. M.,	*Oakland*	1
Nelson, A. N.,	*Los Angeles*	10
Nelson, C. F.,	*Los Angeles*	10
Nelson, C. R.,	*Oakland*	1
Nelson, C. V.,	*Los Angeles*	10
Nelson, E. A.,	*Los Angeles*	10
Nelson, E. S.,	*Los Angeles*	10
Nelson, F. H.,	*Los Angeles*	10
Nelson, H. C.,	*Santa Ana*	16
Nelson, H. M.,	*Barstow*	21
‡Nelson, J. B.,	*Long Beach*	10
Nelson, J. E.,	*Lodi*	24
Nelson, L. G.,	*Long Beach*	10
Nelson, R. C.,	*Beverly Hills*	10
Nelson, R. F.,	*Oakland*	1
Nerad, A. H.,	*Wilmington*	10
Nesburn, H. R.,	*Hollywood*	10
Nesche, G. E.,	*Oakland*	1
Neslund, H. C,.	*Anaheim*	16
Nethercut, R. A.,	*San Francisco*	23
Netzley, R. E.,	*Pasadena*	10
Neubert, A. D.,	*Redlands*	21
‡Neufeld, H. D.,	*Concord*	3
Neumann, E. V.,	*Los Angeles*	10
Neville, J. E.,	*Glendale*	10
Nevin, J. L.,	*San Bernardino*	21
Nevius, F. P.,	*Antioch*	3
Nevius, J. W.,	*Los Angeles*	10
Newbarr, F. D.,	*Los Angeles*	10
Newbecker, C. G.,	*Hanford*	8
Newcomb, A. T.,	*Pasadena*	10
Newell, E.,	*San Jose*	28
Newell, R. R.,	*San Francisco*	23
Newkirk, H. D.,	*Anaheim*	16
Newman, A.,	*San Francisco*	23
Newman, H. W.,	*San Francisco*	23

NAME	CITY	COUNTY SOCIETY NO.
Newman, L.,	*San Francisco*	23
Newman, M. H.,	*Los Angeles*	10
Newman, R. W.,	*Suisun*	32
Newman, W. H.,	*San Diego*	22
Newman, W. W.,	*San Francisco*	23
Newmark, P.,	*Los Angeles*	10
Newson, H. E.,	*San Francisco*	23
Newton, A. H.,	*Yreka*	31
Newton, E. B.,	*Oakland*	1
Newton, H. D.,	*San Diego*	22
Newton, W. C.,	*San Diego*	22
Nicholas, C. Z.,	*Santa Barbara*	27
Nichols, F. C.,	*Santa Monica*	10
Nichols, J. N.,	*Los Angeles*	10
Nichols, R. C.,	*Ontario*	21
Nichols, R. E.,	*Woodland*	38
Nichols, W. E.,	*Pasadena*	10
Nicholson, J.,	*Los Angeles*	10
Nicholson, J. W.,	*Porterville*	36
Nicholson, R. M.,	*Los Angeles*	10
Nider, G. K.,	*Fresno*	4
Niebel, H. L.,	*Palo Alto*	28
Niebergall, H. A.,	*Los Angeles*	10
Nielsen, H. W.,	*Fowler*	4
Nielsen, J. C. E.,	*San Diego*	22
Nielsen, J. M.,	*Los Angeles*	10
Nielsen, J. W.,	*Oxnard*	25
Nielson, L. R.,	*Fresno*	4
Niemand, F. G.,	*San Francisco*	23
Nies, A.,	*Orange*	16
Nies, C. A.,	*Los Angeles*	10
Nilsson, J. P.,	*Long Beach*	10
Nippert, E. F.,	*Los Angeles*	10
Nisbet, T. W.,	*Pasadena*	10
Nittler, A. N.,	*Santa Cruz*	29
Nixon, A. C.,	*Hollywood*	10
Nixon, C. E.,	*Fresno*	4
Nixon, N. K.,	*Los Angeles*	10
Noall, E. T.,	*Santa Rosa*	33
Noble, B. E.,	*Los Angeles*	10
Noble, C. A., Jr.,	*San Francisco*	23
Noble, T. E.,	*Long Beach*	10
Noetling, P. R.,	*Angels Camp*	24
Noggle, G. E.,	*Chino*	21
Nolan, O. F.,	*San Francisco*	23
Nolan, T. J.,	*San Francisco*	23
Noland, C. A.,	*Long Beach*	10
Norman, G. F.,	*Eureka*	5
Norman, J. G.,	*San Pedro*	10
Norris, C. E.,	*Eureka*	5
Norris, W. J.,	*Los Angeles*	10
Northrop, R. S.,	*Napa*	15
Northway, W. H.,	*Stanford Univ.*	28
Norton, F. L.,	*Los Angeles*	10
Norwood, G. E.,	*Covina*	10
Novy, F. G.,	*Oakland*	1
Noyes, F. Le G.,	*Los Angeles*	10
Nuttall, J. P.,	*Santa Monica*	10
Nutting, F. J.,	*Santa Monica*	10
Nutting, R. J.,	*Oakland*	1
Nuzum, F. R.,	*Santa Barbara*	27

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NAME	CITY	COUNTY SOCIETY NO.
Oakleaf, D. C.,	*Cloverdale*	33
*Oatman, H. C.,	*San Diego*	22
O'Brien, G.,	*Sacramento*	19
O'Brien, H. J.,	*Los Angeles*	10
O'Brien, J. J.,	*Los Angeles*	10
O'Brien, J. W.,	*Sacramento*	19
O'Connor, G. B.,	*San Francisco*	23
O'Connor, J. H.,	*San Francisco*	23
§O'Connor, J. J.,	*Los Angeles*	10
O'Connor, R. E.,	*Los Angeles*	10
O'Connor, R. P.,	*Oakland*	1
O'Connor, T. C., Jr.,	*Murphy*	24
O'Connor, T. H.,	*San Francisco*	23
*O'Donnell, E. W.,	*Los Angeles*	10
O'Donnell, F. J.,	*Stockton*	24
O'Donnell, J. M.,	*Hollister*	20
Oechsli, W. R.,	*Olive View*	10
Offield, A. L.,	*Burlingame*	26
Ogden, R. A.,	*San Francisco*	10
O'Grady, W. E.,	*San Francisco*	23
Ohannesian, F.,	*Sacramento*	19
Ohanneson, J.,	*Alameda*	1
O'Hara, F. P.,	*San Diego*	22
O'Hara, J. J.,	*San Diego*	22
Ohnemuller, C. E.,	*Los Angeles*	10
Okami, S.,	*Terminal Island*	10
Okonogi, B.,	*Fresno*	4
‡Olch, I. V.,	*Los Angeles*	10
Oldenbourg, L. A.,	*Berkeley*	1
Olberg, F. H.,	*Redding*	30
Olds, W. H.,	*Los Angeles*	10
‡Oliver, A.,	*Imola*	15
Oliver, H. R.,	*San Francisco*	23
Oliver, J. V.,	*Palm Springs*	18
Oliver, W. A.,	*San Francisco*	23

NAME	CITY	COUNTY SOCIETY NO.
Olmsted, R. C.,	*Pasadena*	10
Olsen, C. W.,	*Los Angeles*	10
Olsen, D. M. R.,	*Berkeley*	1
Olsen, E. R.,	*San Francisco*	23
Olsen, R. S.,	*Los Angeles*	10
Olsen, S.,	*San Francisco*	23
Olsen, X.,	*San Bernardino*	21
Olson, G. M.,	*Los Angeles*	10
Olson, G. W.,	*Fullerton*	16
Omelvena, J. G.,	*San Diego*	22
O'Neil, A. A.,	*San Francisco*	23
O'Neill, B. J., Jr.,	*San Diego*	22
‡O'Neil, F. H.,	*Eureka*	5
O'Neill, J. N.,	*Los Angeles*	10
O'Neill, T. J.,	*Los Angeles*	10
Onesti, S. J.,	*San Francisco*	23
Oppenheimer, L. I.,	*Oakland*	1
Orbison, T. J.,	*Los Angeles*	10
Orcutt, A. H.,	*Oakland*	1
Orella, F. R.,	*San Francisco*	23
Ormsby, E. A.,	*Centerville*	1
Orr, J.,	*Oakland*	1
Osborn, H. B.,	*Fillmore*	37
Osborne, C. J.,	*San Diego*	22
Osborne, R. H.,	*Los Angeles*	10
Osburn, J. N. N.,	*Los Angeles*	10
Ostroff, R. A.,	*San Francisco*	23
Otis, E. F.,	*Brea*	16
Otis, M. R.,	*Los Angeles*	10
Otis, N. M.,	*Santa Monica*	10
Ott, E. R.,	*Berkeley*	1
Ottinger, M. R.,	*San Francisco*	23
Otto, F. W.,	*Los Angeles*	10
Oviedo, G. F.,	*San Francisco*	23
Owen, C. C.,	*San Bernardino*	21
Owen, C. S.,	*National City*	22
Owen, E. D.,	*San Francisco*	23
Owen, G. R.,	*Los Angeles*	10
Owens, R. L.,	*Lodi*	24
Owens, W. R.,	*Glendale*	10
Oyler, J. D.,	*Los Angeles*	10

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NAME	CITY	COUNTY SOCIETY NO.
‡Paap, G. F.,	*Long Beach*	10
Pace, P. T.,	*San Jose*	28
Packard, L. A.,	*Bakersfield*	7
Padden, E. H.,	*Alameda*	1
Padgett, V. W.,	*Alleghany*	17
Paez, J.,	*San Diego*	22
Page, B. H.,	*San Mateo*	26
Page, C. W.,	*Berkeley*	1
Page, W. E.,	*Oakland*	1
Pahl, P. C. H.,	*Los Angeles*	10
Paige, G. A.,	*Anaheim*	16
Paine, N. C.,	*Glendale*	10
Palamountain, W. B.,	*Oakland*	1
Pallais, A.,	*Los Angeles*	10
Pallesen, V. W.,	*Walnut Grove*	19
Pallette, E. C.,	*Los Angeles*	10
Pallette, E. M.,	*Los Angeles*	10
Palmer, B. M.,	*Oakland*	1
Palmer, C. B.,	*San Francisco*	23
Palmer, C. H.,	*Los Angeles*	10
Palmer, E. O.,	*Hollywood*	10
Palmer, R. S.,	*Pomona*	10
Palmer, W. B.,	*Long Beach*	10
‡Palomeque, E. J.,	*San Diego*	22
Paretzky, M.,	*Los Angeles*	10
Parizek, F. J.,	*Los Angeles*	10
Park, D. B.,	*Vallejo*	32
Parker, A. S.,	*Merced*	13
Parker, C. H.,	*Pasadena*	10
Parker, G.,	*Salinas*	14
Parker, H. R.,	*Oakland*	1
Parker, J. A.,	*Merced*	13
Parker, J. A.,	*Los Angeles*	10
Parker, J. T.,	*Oakland*	1
Parker, L. O.,	*San Francisco*	23
Parker, T. A.,	*La Jolla*	22
Parker, W. B.,	*Los Angeles*	10
Parkin, V.,	*Los Angeles*	10
Parkinson, R. H.,	*San Francisco*	23
Parkinson, S. N.,	*Oakland*	1
Parkinson, S. R.,	*Marysville*	39
Parkinson, W. B.,	*Tulare*	36
Parks, B. K.,	*Long Beach*	10
Parks, F. R.,	*Los Angeles*	10
Parowski, S. A.,	*San Diego*	22
Parrish, C. R.,	*Los Angeles*	10
Parrish, G.,	*Los Angeles*	10
Parrott, J. C.,	*San Francisco*	23
¶Parsons, E. W.,	*Vienna, Austria*	23
Parsons, H. H.,	*Anniston, Alabama*	21
Parsons, J. E.,	*Dixon*	38
*Parsons, J. J.,	*Monrovia*	10
Parsons, S. R.,	*Santa Barbara*	27
Partch, W. T.,	*Oakland*	1
Pasette, S. E.,	*Los Angeles*	10

NAME	CITY	COUNTY SOCIETY NO.
Patek, S. D.,	*San Francisco*	23
Paterson, F. H.,	*Santa Ana*	16
Patrick, M. A.,	*Los Angeles*	10
‡Patterson, E. A.,	*Dos Palos*	13
Patterson, G. H.,	*Los Angeles*	10
Patterson, G. L.,	*Santa Rosa*	33
Patterson, J. A.,	*San Bernardino*	21
‡Patterson, J. K.,	*Santa Barbara*	27
Patton, E. F.,	*Los Angeles*	10
Patton, R. F.,	*Yuma, Arizona*	10
Paul, S. B.,	*San Francisco*	23
Paull, R. A.,	*La Jolla*	22
Paulson, G. A.,	*Ada, Okla*	16
‡Paup, M. K.,	*Needles*	21
Paxman, D. G.,	*Oakland*	1
‡Paxson, J. T.,	*Berkeley*	1
Payton, W. B.,	*Riverside*	18
Pehelkin, N. A.,	*San Francisco*	23
Pearce, C. M.,	*Oakland*	1
Pearce, W. M.,	*Wilmington*	10
Pearl, F. A.,	*Los Angeles*	10
Pearl, F. L.,	*San Francisco*	23
Pearson, B. S.,	*Los Angeles*	10
Pearson, C. E.,	*Turlock*	34
Pearson, E. A.,	*Los Angeles*	10
Pearson, R. G.,	*Sacramento*	19
Peddicord, H.,	*Redwood City*	26
Peers, R. A.,	*Colfax*	17
Peers, R. S.,	*Oakland*	1
Peery, J. T.,	*Corcoran*	8
Peery, L. T.,	*Berkeley*	1
Peirsol, E. C.,	*Claremont*	10
Pelkan, K. F.,	*San Jose*	28
Peluso, J. D.,	*Los Angeles*	10
Pendergrass, C. I.,	*Clovis*	4
Pendergrass, J. E.,	*Clovis*	4
Pendleton, W. C.,	*Los Angeles*	10
Pendleton, W. R.,	*Long Beach*	10
Penn, H. S.,	*Los Angeles*	10
Penn, L. L.,	*San Francisco*	23
Pennington, A. S.,	*San Francisco*	23
Peoples, S. Z.,	*Petaluma*	33
Peppers, C. H.,	*Los Angeles*	10
Percy, J. F.,	*Los Angeles*	10
‡Perkins, H. B.,	*Vallejo*	32
Perkins, W. A.,	*Oakland*	1
Perry, C. G.,	*Sausalito*	11
Perry, I. H.,	*San Francisco*	23
Perry, J. R.,	*West Hollywood*	10
Perry, O. H.,	*Yuba City*	39
Perzik, S. L.,	*Los Angeles*	10
Petch, P. H.,	*Oakland*	1
Peters, C.,	*San Francisco*	23
Peters, C. E.,	*Oakland*	1
Peters, L.,	*Alameda*	1
Petersen, H. C.,	*Stockton*	24
Petersen, H. E.,	*San Fernando*	10
Peterson, A.,	*Los Angeles*	10
Peterson, E. A.,	*Vallejo*	32
Peterson, F. W.,	*El Centro*	6
Peterson, J. B.,	*Los Angeles*	10
Petr, F.,	*Turlock*	34
Petter, R. S.,	*Los Angeles*	10
Pettis, J. H.,	*Fresno*	4
Pettit, A. V.,	*San Francisco*	23
Pettler, S. H.,	*Los Angeles*	10
Petty, C. O.,	*Fullerton*	16
Pfeiffer, H. W.,	*La Mesa*	22
Pflueger, O. H.,	*San Francisco*	23
Phelan, C. A.,	*San Francisco*	23
Phelps, P. S.,	*Colfax*	17
Phetteplace, D. O.,	*Fullerton*	16
Phillips, A. D.,	*Sacramento*	19
Phillips, A. L.,	*Santa Cruz*	29
Phillips, C. E.,	*Los Angeles*	10
‡Phillips, L.,	*Los Angeles*	10
Phillips, L. F. E.,	*Palo Alto*	28
Philp, W. S.,	*Los Angeles*	10
Pickard, R. J.,	*San Diego*	22
Pidcock, J. W.,	*Hollywood*	10
Pier, H. McK.,	*Oakland*	1
Pierce, G. W.,	*San Francisco*	23
Pierce, H. F.,	*Santa Barbara*	27
Pierce, S. N.,	*Los Angeles*	10
Pierson, P. H.,	*San Francisco*	23
Pillsbury, S. G.,	*Long Beach*	10
Pimentel, G. B.,	*Los Banos*	13
Pindell, M. L.,	*Los Angeles*	10
Pindler, L. A.,	*Los Angeles*	10
Piness, G.,	*Los Angeles*	10
‡Pinkerton, B. G.,	*Los Angeles*	10
Pinkham, C. B.,	*San Francisco*	23
Pinkley, V. M.,	*San Bernardino*	21
Pinney, I.,	*Stockton*	24
Pinto, H. E.,	*Talmage*	12
Piper, H. E.,	*Santa Cruz*	29
Pischel, D. K.,	*San Francisco*	23
Pischel, K.,	*San Francisco*	23
Piscitelli, A. M.,	*San Francisco*	23
Pitkin, H. C.,	*San Francisco*	23
Pitts, E. H.,	*Sacramento*	19
Pius, C.,	*Yreka*	31
Plane, J. F.,	*Long Beach*	10
Plank, T. H.,	*San Francisco*	23
Plath, H. W.,	*Oakland*	1
Platt, J. E.,	*Pasadena*	10
Player, L. P.,	*San Francisco*	23
Pleth, V.,	*Santa Rosa*	33
Plimpton, E. B.,	*Los Angeles*	10
Plymire, D. B.,	*San Francisco*	23
Poage, C. A.,	*Colusa*	38
Podstata, V. H.,	*San Francisco*	1
Poheim, J. T.,	*San Francisco*	23
Polesky, F. A.,	*Los Angeles*	10
Poley, C. W.,	*Los Angeles*	10
Poliak, P. P.,	*New York, N. Y.*	28
Polland, W. S.,	*San Rafael*	11
Pollia, J. A.,	*Los Angeles*	10
Pollock, W. E.,	*Sacramento*	19
Pomeroy, F. K.,	*Fresno*	4
Pomeroy, G. T.,	*Yountville*	15
Pomeroy, J. L.,	*Los Angeles*	10
Pond, S. B.,	*Patton*	21
Poole, F. H.,	*Santa Cruz*	29
*Poole, R. E.,	*Yountville*	15
Pope, W. H.,	*Sacramento*	19
Porter, C. D.,	*San Francisco*	23
Porter, E. E.,	*San Jose*	28
Porter, E. B.,	*Altadena*	22
Porter, G. S.,	*Los Angeles*	10
Porter, J. A.,	*Modesto*	34
Porter, M. E.,	*Eldridge*	33
Porter, R. L.,	*San Francisco*	23
Porter, W. S.,	*Oakland*	1
Post, J. O.,	*Los Angeles*	10
Poston, H. P.,	*Pasadena*	10
Pottenger, F. M.,	*Monrovia*	10
Pottenger, F. M., Jr.,	*Monrovia*	10
Pottenger, J. E.,	*Monrovia*	10
Pottenger, R. T.,	*Pasadena*	10
Potter, A.,	*San Francisco*	23
Potter, C. D.,	*San Francisco*	23
Potter, G.,	*Oakland*	1
‡Potter, H. G.,	*Winters*	38
Potter, M. J. M.,	*San Diego*	22
Potter, W. H.,	*San Diego*	22
Pouppirt, P. S.,	*San Francisco*	23
Powell, A.,	*Lafayette*	1
Powell, B. J.,	*Stockton*	24
Powell, B. J., Jr.,	*Stockton*	24
Powell, D. R.,	*Stockton*	24
Powell, R. C.,	*Richmond*	3
Powell, W. A.,	*Martinez*	3
Powers, A. R.,	*Tracy*	24
Powers, R. A.,	*Palo Alto*	28
Pratt, B. H.,	*Lemoore*	8
Pratt, E. D.,	*Burbank*	10
Pratt, M. D.,	*Fall River Mills*	30
Pratt, O. B.,	*Los Angeles*	10
Pratt, T. R.,	*Carmel*	13
Premo, M. A.,	*San Jose*	28
Presler, H. M.,	*San Diego*	22
Pressley, J. F.,	*San Francisco*	23
Pressman, J. J.,	*Los Angeles*	10
Preston, A. W.,	*Visalia*	36
Preuss, C. A.,	*Santa Barbara*	27
Price, L. G.,	*Fresno*	4
Prien, R. H.,	*Gilroy*	28
Priestley, S. F.,	*Stockton*	24
Prigge, E. K.,	*Los Angeles*	10
Primasing, R.,	*Courtland*	19
Prince, L. D.,	*San Francisco*	23
Prince, P. W.,	*Long Beach*	10
Prince, R. W.,	*San Bernardino*	21
Prindle, K. H.,	*San Mateo*	26
‡Prisinzano, G.,	*Sacramento*	19
Pritchard, F. H.,	*Colton*	21
Pritchard, J. L.,	*San Jose*	28
Pritchard, W. F.,	*San Bernardino*	21
Proctor, D. T.,	*Olive View*	10
Proescher, F.,	*San Jose*	28
Profant, H. J.,	*Santa Barbara*	27
Proudfoot, C. P.,	*San Luis Obispo*	25
Pruett, H. J.,	*San Francisco*	23
Pruett, J. F.,	*San Francisco*	23
Pryor, H. B.,	*Palo Alto*	28
Pulford, D. S.,	*Sacramento*	19
Purcell, R.,	*Los Angeles*	10
Purdy, A. P.,	*San Francisco*	23
Purlenky, G. P.,	*Arcata*	5
Pursell, F. J.,	*Los Angeles*	10
Purviance, C. C.,	*Fairfield*	32
Putnam, H. A.,	*Monrovia*	10
Putnam, V.,	*San Francisco*	23

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NAME	CITY	COUNTY SOCIETY NO.
Quaintance, P. A.,	*Los Angeles*	10
Quarry, P. T.,	*Santa Rosa*	33
Quigley, J. S.,	*Oakland*	1
Quimby, S. A.,	*Madera*	4
Quinan, C.,	*Nevada City*	17
Quinlan, C. M.,	*Santa Rosa*	33
Quinlan, J. F.,	*San Francisco*	23
Quinn, E. M.,	*Vallejo*	32
Quinn, T. D'A.,	*San Francisco*	23
Quinn, V. J.,	*Los Angeles*	10
Quinn, W.,	*San Francisco*	23
‡Quinn, W. F.,	*Los Angeles*	10
Quinn, W. J.,	*Eureka*	5
Quirmbach, R. P.,	*San Francisco*	23

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NAME	CITY	COUNTY SOCIETY NO.
Rabinowitz, R.,	*San Francisco*	23
Rabwin, M. H.,	*Los Angeles*	10
Racer, F. H.,	*Lomita*	10
Rachmel, W.,	*Los Angeles*	10
Radford, E. B.,	*Walnut Creek*	3
Ragan, S. T.,	*Hollywood*	10
Railsback,, O. C.,	*Woodland*	38
Raitt, G. E.,	*Santa Ana*	16
Rajotte, E. C. F.,	*San Francisco*	23
Rambo, W. H.,	*Los Angeles*	10
Rammelt, W.,	*Los Angeles*	10
Ramsay, R. E.,	*Pasadena*	10
Rand, C. W.,	*Los Angeles*	10
Randall, S. B.,	*Santa Cruz*	29
Randel, H. A.,	*Fresno*	4
Raney, R. B.,	*Los Angeles*	10
‡Ranker, E. R.,	*Oakland*	1
Rankin, A. H.,	*San Francisco*	23
Rankin, E. P.,	*Berkeley*	1
Rankin, T. J.,	*San Diego*	22
Ransom, D. H.,	*Madera*	4
Ransom, J. K.,	*Modesto*	34
Ranson, J. R.,	*San Luis Obispo*	25
Rapaport, H.,	*Los Angeles*	10
Rapaport, W.,	*Oakland*	1
Raphael, J. C.,	*Oakland*	1
Rasor, C.,	*Oakland*	1
Rathbone, R. H.,	*Los Angeles*	10
*Rathbun, W. T.,	*Colusa*	38
Ratliff, H. L.,	*Riverside*	18
Ratner, R.,	*San Francisco*	23
Ratty, F. J.,	*San Diego*	22
Raulston, B. O.,	*Los Angeles*	10
Ravenscroft, J. W.,	*San Diego*	22
Rawlins, A. G.,	*San Francisco*	23
Ray, E. B.,	*Bellflower*	10
Ray, F. S.,	*Los Angeles*	10
Ray, H. H.,	*San Mateo*	26
Ray, L.,	*Santa Rosa*	33
Raymond, A.,	*San Francisco*	23
Rea, B. J.,	*Sacramento*	19
Rea, R. R.,	*Los Angeles*	10
Rea, S. L.,	*Ukiah*	12
Rea, T.,	*Yreka*	31
Read, F. T.,	*Glendale*	10
Read, J. M.,	*San Francisco*	23
Ready, F. L.,	*Los Angeles*	10
Ream, G. D.,	*Albany*	1
Ream, M. P.,	*San Leandro*	1
Reamer, E. F.,	*Modesto*	34
Reardon, F. B.,	*Sacramento*	19
Reasner, W. F.,	*Santa Monica*	10
Rebec, W. G.,	*Belmont*	26
Reckers, W. A.,	*Placerville*	19
Rector, J. M.,	*San Francisco*	23
Redelings, L. H.,	*San Diego*	22
Redewill, F. H.,	*San Francisco*	23
Redmond, M. H.,	*Huntington Park*	10
Reed, A. C.,	*San Francisco*	23
Reed, C. C.,	*Compton*	10
Reed, E. N.,	*Santa Monica*	10
Reed, J. R.,	*Pasadena*	10
Reed, W. J.,	*Redlands*	21
Reed, W. W.,	*Nevada City*	17
Reeder, C. W.,	*Long Beach*	10
Reekie, K. E.,	*San Jacinto*	18
Reeng, J. D.,	*San Francisco*	23
Rees, C. E.,	*San Diego*	22
Rees, C. W.,	*San Diego*	22
Rees, D. M.,	*Monterey Park*	10
Rees, H. C.,	*Los Angeles*	10
Rees, R. B.,	*Bakersfield*	7
Reeves, E. W.,	*Salinas*	14
Reeves, J. M.,	*Oakland*	1
Reeves, J. W.,	*Los Angeles*	10
Reeves, W. R.,	*Salinas*	14
Regan, L. J.,	*Los Angeles*	10
*Rehfisch, J. M.,	*San Francisco*	23
Reich, A., Jr.,	*Palo Alto*	28
Reich, W. W.,	*Berkeley*	1
Reiche, C.,	*Los Angeles*	10
Reichert, F. L.,	*San Francisco*	23
Reichle, P. A.,	*Los Angeles*	10
Reid, R. B.,	*Beaumont*	18
Reid, R. S.,	*Oceanside*	22
Reilly, P. H.,	*Vallejo*	32

NAME	CITY	COUNTY SOCIETY NO.
Reilly, W.,	*San Francisco*	23
Reilly, W. A.,	*San Francisco*	23
Reina, S.,	*Los Angeles*	10
Reinard, E.,	*Los Angeles*	10
Reinard, L.,	*Los Angeles*	10
Reinertsen, B. R.,	*Los Angeles*	10
Reinle, G. G.,	*Oakland*	1
Reis, A. G. DeS.,	*Oakland*	1
Reische, A. E.,	*Oakland*	1
Reiss, O.,	*Los Angeles*	10
‡Reiss, T. H.,	*Alameda*	1
Reitzel, R. J.,	*San Mateo*	26
Remaly, C. E.,	*Los Angeles*	10
Remington, L. D.,	*Monrovia*	10
Remmel, A. J.,	*San Francisco*	23
Remmen, E. T.,	*Glendale*	10
Renner, J. H.,	*Santa Barbara*	27
Renz, C.,	*Mill Valley*	23
‡Replogle, E. G.,	*Los Angeles*	10
Ress, I. LeR.,	*Los Angeles*	10
Rethwilm, L. A.,	*San Francisco*	23
Reud, W. R.,	*Oakland*	1
Rey, H. F,.	*Oxnard*	37
Reyes, J. M. de l.,	*Los Angeles*	10
Reynolds, C. E.,	*Venice*	10
‡Reynolds, F. C.,	*Chico*	2
Reynolds, H. C.,	*Arlington*	18
‡Reynolds, J.,	*Los Angeles*	10
‡Reynolds, J. M.,	*Long Beach*	10
Reynolds, L. G.,	*Los Angeles*	10
Reynolds, L. R.,	*San Francisco*	23
Reynolds, P. A.,	*Los Angeles*	10
Reynolds, R. A.,	*San Francisco*	23
Reynolds, T. E.,	*Oakland*	1
Rhodes, G. K.,	*San Francisco*	23
Rhone, T. B.,	*Orange*	16
Rhymes, L. H.,	*Canoga Park*	10
Riach, M. T.,	*San Diego*	22
Rice, C. H.,	*Oakland*	1
Rice, F. M.,	*San Francisco*	23
Rice, P.,	*Los Angeles*	10
Richards, C. M.,	*San Jose*	28
Richards, D. N.,	*Oakland*	1
Richards, S. B.,	*San Bernardino*	21
Richardson, G. C.,	*Sonora*	24
Richter, C.,	*Balboa Beach*	16
Richter, I. M.,	*Santa Barbara*	27
Rickabaugh, H. B.,	*Alhambra*	10
Rickard, J. F.,	*San Francisco*	23
Riddell, O. J.,	*Alhambra*	10
*Rigdon, R. L.,	*San Francisco*	23
Riggin, L. L.,	*Pasadena*	10
Righetti, E.,	*San Francisco*	23
Righetti, H.,	*San Francisco*	23
Rinehart, J. F.,	*San Francisco*	23
Rinkenberger, F. W.,	*Los Angeles*	10
Rinne, F. A.,	*San Francisco*	23
Risley, E. H.,	*Loma Linda*	21
‡Risser, J. C.,	*Pasadena*	10
Rixford, E.,	*San Francisco*	23
Rixford, E. L., Jr.,	*San Francisco*	23
*Roath, C.,	*Los Angeles*	10
Robarts, H. P.,	*San Francisco*	23
Robbins, A. C.,	*Garden Grove*	16
Robbins, A. R.,	*Los Angeles*	10
Robbins, B.,	*Hanford*	8
Robbins, D. R.,	*Los Angeles*	10
‡Roberg, D. N.,	*San Jose*	28
Roberts, A. M.,	*Los Angeles*	10
Roberts, E. K.,	*Los Angeles*	10
Roberts, G. J.,	*Pomona*	10
Roberts, G. W.,	*Oakland*	1
Roberts, J. G.,	*Pomona*	10
Roberts, J. M.,	*Los Angeles*	10
Roberts, W. H.,	*Pasadena*	10
Robertson, D. L.,	*Modesto*	34
Robertson, G.,	*San Francisco*	23
Robertson, H. R.,	*Los Angeles*	10
Robertson, J. C.,	*Modesto*	34
Robertson, J. W., Jr.,	*Livermore*	1
Robertson, R. R.,	*San Rafael*	11
Robinson, J.,	*Anaheim*	16
Robinson, J. H.,	*Los Angeles*	10
Robinson, J. W.,	*Los Angeles*	10
Robinson, L. L.,	*San Rafael*	11
Robinson, S. P.,	*Santa Barbara*	27
Robinson, S. S.,	*Los Angeles*	10
Robison, L. H.,	*Los Angeles*	10
Roblee, W. W.,	*Riverside*	18
Rochex, F. J.,	*San Francisco*	23
Rodenbaugh, F. H.,	*San Francisco*	23
Rodin, F. H.,	*San Francisco*	23
Roen, P. B.,	*Hollywood*	10
Roger, J. H. D.,	*San Francisco*	23
Rogers, A. M.,	*Los Angeles*	10
Rogers, E. L.,	*Loma Linda*	21
Rogers, H.,	*Oakland*	1
Rogers, H.,	*Bakersfield*	7
Rogers, H. S.,	*Petaluma*	33
Rogers, J. A.,	*San Francisco*	23
Rogers, J. B.,	*Imola*	15
Rogers, J. B.,	*Los Angeles*	10

NAME	CITY	COUNTY SOCIETY NO.
Rogers, J. D.,	*Los Angeles*	10
Rogers, L. B.,	*Los Angeles*	10
Rogers, L. E.,	*Los Angeles*	10
Rogers, S.,	*Tulare*	36
Rogers, T. J.,	*Los Angeles*	10
Rogers, T. L.,	*Long Beach*	10
Rogers, W. G.,	*Los Angeles*	10
Rogers, W. L.,	*San Francisco*	23
Rohlfes, B. J.,	*San Francisco*	23
Rohrbacher, G. H.,	*Stockton*	24
‡Rolland, W. M.,	*Los Angeles*	10
Roller, C. S.,	*Colusa*	38
Rolph, W. D.,	*National City*	22
Roncovieri, L.,	*San Francisco*	23
Rood, R. S.,	*Davenport*	29
Rood, V. V.,	*Grass Valley*	17
Rook, C. W.,	*Montrose*	10
Roome, C. T.,	*Santa Barbara*	27
Rooney, C. E.,	*Santa Monica*	10
Rooney, H. M.,	*Los Angeles*	10
Roos, A. R.,	*Loma Linda*	21
Roos, D. D.,	*Corona*	18
Root, P. N.,	*Bakersfield*	7
Root, R. R.,	*Corona*	18
Rosanoff, A. J.,	*Los Angeles*	10
‡Rosasco, J. L.,	*Stockton*	24
Rosasco, O. L.,	*Saratoga*	28
Rosburg, A. H.,	*San Francisco*	23
Roscoe, A. M.,	*Newman*	34
Rose, C. M.,	*Los Angeles*	10
Rose, H. de W.,	*Sonora*	24
Rose, J. T.,	*Healdsburg*	33
Rose, L. M.,	*Santa Clara*	28
Rosenberg, M. N.,	*Sawtelle*	10
Rosenberg, M. W.,	*Los Angeles*	10
Rosenberger, H. G.,	*Whittier*	10
Rosenblatt, J.,	*Duarte*	10
Rosenblum, D. H.,	*Los Angeles*	10
Rosenblum, H. H.,	*San Francisco*	23
Rosencrantz, E.,	*San Francisco*	23
Rosenfeld, M. H.,	*Los Angeles*	10
Rosenkranz, H. A.,	*Los Angeles*	10
Rosenthal, A. G.,	*San Francisco*	23
*Rosoff, J. A.,	*Compton*	10
Rosove, L.,	*Santa Monica*	10
Ross, A.,	*Los Angcles*	10
Ross, D. E.,	*Los Angeles*	10
Ross, K. F.,	*Los Angeles*	10
Ross, M. H.,	*Los Angeles*	10
Ross, P.,	*Richmond*	3
Ross, S. G.,	*Pasadena*	10
Ross, V. R.,	*Stockton*	24
Rosson, C. T.,	*Hanford*	8
Rosson, R. W.,	*Tulare*	36
†Roth, A.,	*Los Angeles*	10
Roth, E. F.,	*Palo Alto*	28
Roth, G. H.,	*Los Angeles*	10
‡Roth, H. A.,	*Long Beach*	10
Rothman, P. E.,	*Los Angeles*	10
Rothschild, M.,	*San Francisco*	23
Rothwell, W. T.,	*Los Angeles*	10
Rouff, E.,	*San Jose*	14
Rouse, D. E.,	*Olive View*	10
Rover, H. P.,	*Los Angeles*	10
Rowan, E. J.,	*Wilmington*	10
Rowe, A. H.,	*Oakland*	1
Rowe, C. H.,	*Oakland*	1
Rowe, M. J.,	*Norwalk*	10
Rowell, H. N.,	*Berkeley*	1
Rowell, W. A.,	*Trinity Center*	3
Royer, J. E.,	*Oakland*	1
Royston, E. A.,	*Los Angeles*	10
Rubenstein, C. L.,	*San Francisco*	23
Rubin, J. S.,	*Los Angeles*	10
Rubinstein, I.,	*Los Angeles*	10
Ruddock, J. C.,	*Los Angeles*	10
Ruddy, L. W.,	*Sacramento*	19
Rude, A. E.,	*Los Angeles*	10
Rue, H. A.,	*Los Angeles*	10
Ruediger, E. H.,	*San Diego*	22
*Ruediger, G. F.,	*Pasadena*	10
Rueter, K.,	*Oakland*	1
Ruff, F. R.,	*Fresno*	4
Ruggles, H. E.,	*San Francisco*	23
Rukke, G. V.,	*Monterey*	14
Rulison, E. T.,	*Sacramento*	19
Rumph, P. E.,	*Orange*	16
Runckel, G. H.,	*McCloud*	31
Runner, J. F.,	*San Francisco*	23
Rupp, J. J.,	*Santa Barbara*	27
Rusche, C. F.,	*Hollywood*	10
Rush, R. C.,	*San Fernando*	10
Russell, E. L.,	*Santa Ana*	16
Russell, F. C.,	*San Diego*	22
Russell, J. A.,	*Auburn*	17
Russell, R.,	*Glendale*	10
Russell, W. W.,	*San Diego*	22
Ruth, E. S.,	*Hollywood*	10
Rutherford, F. de P.,	*Santa Clara*	28
Ryan, A. F.,	*Los Angeles*	10
Ryan, A. J.,	*Vallejo*	32
Ryan, A. M.,	*San Francisco*	23

NAME	CITY	COUNTY SOCIETY NO.
Ryan, C. D.,	*Beverly Hills*	10
Ryan, F. S.,	*San Jose*	28
Ryan, R. C.,	*San Francisco*	23
Ryan, W. J.,	*San Diego*	22
Ryder, B. E.,	*Los Angeles*	10
Rypins, R. F.,	*San Francisco*	23

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NAME	CITY	COUNTY SOCIETY NO.
Saam, J. G.,	*Oakland*	1
Sabichi, G. C.,	*Claremont*	10
Saeltzer, D. V.,	*Sacramento*	19
Safarik, E. S.,	*Los Angeles*	10
Saffro, L. B.,	*San Pedro*	10
Saier, M. H.,	*Palo Alto*	28
Sale, J. J.,	*San Francisco*	23
Salisbury, C. S.,	*Los Angeles*	10
Salomon, E.,	*San Francisco*	23
Salter, N. M.,	*Williams*	38
Sample, T. N.,	*Fresno*	4
Sampson, J. A.,	*Los Angeles*	10
Sampson, J. J.,	*San Francisco*	23
Sampson, J. P.,	*Santa Monica*	10
Sampson, M. H.,	*Berkeley*	1
Sampson, P. M.,	*Long Beach*	10
Sampson, W. A.,	*San Francisco*	23
Sanderson, G. H.,	*Stockton*	24
Sandholt, J. P.,	*Monterey*	14
Sandie, J.,	*Los Angeles*	10
Sands, R. A.,	*Ocean Park*	10
Sands, R. L.,	*Santa Monica*	10
Sanford, H. E.,	*Montrose*	10
Sanford, J. R.,	*Pasadena*	10
Sansum, W. D.,	*Santa Barbara*	27
Sappington, E. E.,	*San Francisco*	23
Sargent, W. H.,	*Oakland*	1
Sartori, H. J.,	*San Francisco*	23
Sasso, J. A.,	*Los Angeles*	10
Sauber, I. E.,	*Wallingford, Conn.*	10
Sauer, F. J.,	*Los Angeles*	10
Sauer, F. K.,	*Los Angeles*	10
Saulsberry, C. E.,	*New Brunswick, New Jersey*	16
Saunders, C. E.,	*San Jose*	28
Savage, J. C.,	*Los Angeles*	10
Savage, P. M.,	*San Bernardino*	21
Savage, P. M., Jr.,	*San Bernardino*	21
Savage, S. H.,	*Lancaster*	10
Savage, W. W.,	*San Bernardino*	21
Saverien, A. E.,	*Los Angeles*	10
Saverien, H. L.,	*Fair Oaks*	19
Sawyer, F. E.,	*Oakland*	1
Saylin, G. J.,	*Los Angeles*	10
Saylin, J.,	*Venice*	10
Saylor, B. F.,	*Redding*	30
Scamell, J. W.,	*Oakland*	1
Scanland, J. M.,	*Imola*	28
Scanlon, W. G.,	*Pasadena*	10
Scarboro, E. R.,	*Fresno*	4
Scarborough, R. A.,	*San Francisco*	23
Scatena, F. N.,	*Sacramento*	19
Schaefer, J. W.,	*Los Angeles*	10
Schaeffer, R. W.,	*Redondo Beach*	10
Schaller, W. F.,	*San Francisco*	23
Schallig, D. W.,	*Sacramento*	19
Schaper, E. A.,	*Keene*	7
Schaupp, K. L.,	*San Francisco*	23
Schefcik, J. F.,	*Los Angeles*	10
Scheier, R. B.,	*San Francisco*	23
Schell, J. P.,	*San Jose*	28
Schenck, G. F.,	*Los Angeles*	10
Scherfee, J. F.,	*Los Angeles*	10
Schiffbauer, H. E.,	*Los Angeles*	10
Schiller, M. M.,	*Los Angeles*	10
Schilling, W.,	*San Francisco*	23
Schlageter, H. J.,	*San Francisco*	23
Schlappi, J. C.,	*San Diego*	22
Schlotthauer, H. L.,	*Tehachapi*	7
Schlotthauer, M. Q.,	*Tehachapi*	7
Schluter, H. F.,	*Sacramento*	19
Schmelz, C. J.,	*Guerneville*	33
Schmid, C. F.,	*Hermosa Beach*	10
Schmidt, A. E.,	*San Francisco*	23
Schmidt, D. A.,	*Los Angeles*	10
Schmidt, D. G.,	*San Quentin*	11
Schmidt, E. J.,	*Fresno*	4
Schmidt, F. M.,	*Los Angeles*	10
Schmidt, P. E.,	*Glendale*	10
Schmitt, E. O. G.,	*San Jose*	28
Schmitt, H. H.,	*Gilroy*	28
Schmitt, L. S.,	*San Francisco*	23
Schmoele, J. M.,	*Los Angeles*	10
Schneider, E. H.,	*Los Angeles*	10
‡Schneiders, R. A.,	*La Mesa*	22
Schoff, C. E.,	*Sacramento*	19
Schofield, R. O.,	*Boulder City, Nev.*	17
Scholl, A. J.,	*Los Angeles*	10
Scholtz, M.,	*Los Angeles*	10
Scholz, A. M.,	*Los Angeles*	10

NAME	CITY	COUNTY SOCIETY NO.
Schomaker, T. P.,	*San Francisco*	23
Schoonmaker, G. D.,	*San Francisco*	23
Schott, H. J.,	*Los Angeles*	10
Schottstaedt, W. E. R.,	*Fresno*	4
Schreiber, L. W.,	*Santa Monica*	10
Schroeder, F. B.,	*San Diego*	22
*Schroeder, L. A.,	*Los Angeles*	10
Schuetz, C. E.,	*Hollywood*	10
Schulman, L. M.,	*Los Angeles*	10
Schultz, C. E.,	*Castroville*	14
Schultz, H. H.,	*San Francisco*	23
Schultz, L. O.,	*Glendale*	10
Schulz, R. L.,	*Los Angeles*	10
Schulze, M.,	*San Francisco*	23
Schumacher, I. C.,	*San Francisco*	23
Schurmeier, H. L.,	*Santa Barbara*	27
Schussler, H,. Jr.,	*San Francisco*	23
Schwalenberg, H. R.,	*Santa Barbara*	27
Schwartz, A. H.,	*Los Angeles*	10
Schwartz, D. Z.,	*Los Angeles*	10
Schwartz, F. L.,	*San Diego*	22
Schwartz, I.,	*San Francisco*	10
¶Schwartzman, H.,	*Havre, Montana*	1
Schwarz, I.,	*San Francisco*	23
Schwarz, T. E.,	*Oakland*	1
Schwuchow, W. B.,	*Los Angeles*	10
Sciaroni, G. H.,	*Fresno*	4
Scobce, J. E.,	*Los Angeles*	10
Scoins, W. H.,	*Los Angeles*	10
Scott, A. J., Jr.,	*Los Angeles*	10
Scott, F. L.,	*Los Angeles*	10
Scott, J. T.,	*San Diego*	22
Scott, R. R.,	*Selma*	4
Scott, W. E.,	*San Francisco*	23
Scovel, R. E.,	*San Francisco*	23
Scribner, R. G.,	*Sacramento*	19
Scroggy, J. Q. A.,	*Los Angeles*	10
Scudder, R.,	*Fort Bragg*	12
Scuderi, S. A.,	*Los Angeles*	10
Seabolt, G. C.,	*South Pasadena*	10
Seals, P. W.,	*Los Angeles*	10
Searls, H. H.,	*San Francisco*	23
Seaver, H. C.,	*Los Angeles*	10
Seavey, M. A.,	*Sacramento*	19
Seawell, J. W.,	*Healdsburg*	33
Sebastian, C. F.,	*Los Angeles*	10
Sedgwick, V. de M.,	*Long Beach*	10
Seeburt, E. M. P.,	*San Francisco*	23
Seech, S. G.,	*Los Angeles*	10
Seeley, L. J.,	*Redding*	31
Segall, G.,	*Los Angeles*	10
Seiberth, J.,	*Pixley*	36
Seid, M. J.,	*San Francisco*	23
Seiger, H. W.,	*Los Angeles*	21
Seitz, R. P.,	*San Francisco*	23
Sekiyama, I.,	*Los Angeles*	10
Seletz, R.,	*Los Angeles*	10
Seligman, L. J.,	*Los Angeles*	10
Sellery, A. C.,	*Long Beach*	10
Sellery, C. M.,	*Los Angeles*	10
Sellew, P. K.,	*Los Angeles*	10
Sellon, G. I.,	*Fullerton*	16
Semenov, H.,	*Los Angeles*	10
Servin, C.,	*Los Angeles*	10
Settle, F. B.,	*Long Beach*	10
Setzler, G. B.,	*Los Angeles*	10
Sevenman, G. W.,	*San Mateo*	26
Sevier, E.,	*Sacramento*	19
Sewall, E. C.,	*San Francisco*	23
Seymour, E. C.,	*Olive View*	10
Shackford, B. C.,	*Long Beach*	10
Shade, M. A.,	*Oakland*	1
Shafer, F. P.,	*Los Angeles*	10
Shaffer, C. J.,	*Huntington Park*	10
Shafor, H. A.,	*Los Angeles*	10
Shaghoian, A. H.,	*Daly City*	26
Shahovitch, G. P.,	*Los Angeles*	10
Shambaugh, N. F.,	*Long Beach*	10
Shapiro, N. H.,	*San Francisco*	23
Sharp, G. S.,	*Pasadena*	10
Sharp, J. C.,	*San Jose*	28
Sharp, J. G.,	*San Francisco*	23
Sharp, K. F.,	*Fresno*	4
Sharp, R. G.,	*San Diego*	22
Sharpe, O. A.,	*San Francisco*	26
Sharpsteen, J. R.,	*Oakland*	1
Shattinger, C.,	*Los Altos*	28
Shaull, E. M.,	*Palo Alto*	28
Shaw, E. B.,	*San Francisco*	23
Shaw, H. N.,	*Los Angeles*	10
Shaw, L. O.,	*Walnut Park*	10
Shea, J. F.,	*San Francisco*	23
Shea, T. T.,	*San Francisco*	23
Sheafe, E. V.,	*Oakland*	1
Sheehy, F. T.,	*San Francisco*	23
Sheets, O. B.,	*Los Angeles*	10
Shelby, D. C.,	*Los Angeles*	10
Sheldon, E. A.,	*Bellflower*	10
Sheldon, E. C.,	*Hollister*	20
Sheldon, E. F.,	*Los Angeles*	2
Sheldon, F. B.,	*Stockton*	24
Sheldon, R. F.,	*Long Beach*	10
Sheller, W. O.,	*Long Beach*	10
Shelton, E. K.,	*Santa Barbara*	27
Shelton, G. C.,	*Los Angeles*	10
Shelton, V. G.,	*Hollywood*	10
Shenk, F. P.,	*Santa Cruz*	29
Shepard, C. E.,	*Stanford University*	28
Shepard, W. P.,	*San Francisco*	23
Shepardson, H. C.,	*San Francisco*	23
Shephard, J. H.,	*San Jose*	28
Shepherd, H. L.,	*Los Angeles*	10
Sher, B. H.,	*Los Angeles*	10
Sheranian, H. N.,	*Los Angeles*	10
Sherman, B. H.,	*Hollywood*	10
Sherman, J.,	*San Francisco*	23
Sherman, R. S.,	*San Francisco*	23
Sherman, S. R.,	*San Francisco*	23
Sherrard, E. E.,	*Los Angeles*	10
Sherrick, J. W.,	*Oakland*	1
Sherrill, J. W.,	*La Jolla*	22
Sherry, L. B.,	*Pasadena*	10
Shidler, G. P.,	*Torrance*	10
Shields, L.,	*Oakland*	1
Shiels, G. F.,	*Redwood City*	26
Shilling, J. W.,	*Los Angeles*	10
Shipley, R. E.,	*Los Angeles*	10
Shipley, W. C.,	*Santa Rosa*	33
Shipman, S. J.,	*San Francisco*	23
Shippey, R. H.,	*Long Beach*	10
Shirey, C. W.,	*Hollywood*	10
Shirk, F. M.,	*La Verne*	10
Shoemaker, H.,	*Los Angeles*	10
Shone, L. B.,	*San Francisco*	23
Shook, F. M.,	*Oakland*	1
Shore, F. A.,	*Ventura*	37
Shorkley, T. M.,	*Carpinteria*	27
Short, J. E.,	*Los Angeles*	10
Shreck, J. A.,	*Redlands*	21
‡Shyrock, E. H.,	*Loma Linda*	21
Shryock, A.,	*Loma Linda*	21
Shuck, C. H.,	*Fresno*	4
Shufelt, A. A.,	*San Jose*	28
Shulman, L.,	*Los Angeles*	10
Shultz, E. L.,	*Los Angeles*	10
Shumaker, E. K.,	*Los Angeles*	10
Shumaker, P. W.,	*Los Angeles*	10
*Shuman, J. R.,	*Los Angeles*	10
Shuman, J. W.,	*Los Angeles*	10
Shumate, C. A.,	*San Francisco*	23
Shumate, F. O.,	*San Francisco*	23
Shumate, T. E.,	*San Francisco*	23
Shutes, M. H.,	*Oakland*	1
Sicherman, K. L.,	*Los Angeles*	10
Sides, H. E.,	*Huntington Park*	10
Siefert, A. C.,	*Oakland*	1
‡Siegel, L. E.,	*Los Angeles*	10
Siegmund, F. W.,	*Los Angeles*	10
Sigworth, D. C.,	*Long Beach*	10
*Silliman, J. C.,	*Palo Alto*	27
Silverberg, M. H.,	*San Francisco*	23
Silverman, D. J.,	*Los Angeles*	10
Silvia, C. A.,	*Gilroy*	28
Simms, J. S.,	*Bellflower*	10
Simons, C. G.,	*No. Hollywood*	10
Simonds, P. E.,	*Riverside*	18
Simpson, B.,	*San Francisco*	23
Simpson, B. R.,	*San Diego*	22
Sinclair, A. D.,	*San Francisco*	23
Singer, H.,	*Los Angeles*	10
Singerman, I.,	*Los Angeles*	10
Sink, W. D.,	*Santa Maria*	27
Sippy, J. J.,	*Stockton*	24
Sirbu, A. B.,	*San Francisco*	23
Sisson, C. E.,	*Los Angeles*	22
Sisson, M.,	*Oakland*	1
Skaff, J. E.,	*San Francisco*	23
Skaleter, E. A.,	*Los Angeles*	10
Skeel, D. W.,	*Los Angeles*	10
Skelton, L. W.,	*Pasadena*	10
Skillen, J.,	*Olive View*	10
Skilling, L. E.,	*Alameda*	1
Slagerman, V. B.,	*Los Angeles*	10
Slater, H. M.,	*Palo Alto*	28
Slattery, J. W.,	*Mountain View*	28
Slaughter, H. C.,	*Los Angeles*	10
Slavich, J. F.,	*Oakland*	1
Sleeper, K. R.,	*Los Angeles*	10
Slemons, J. M.,	*Los Angeles*	10
Sloan, L. E.,	*Inglewood*	10
Sloan, O. J.,	*Glendale*	10
Sloane, L. O.,	*Los Angeles*	10
‡Slocum, Y. K.,	*Tarzana*	10
Smale, G. A.,	*Los Angeles*	10
Small, C. K.,	*Oakland*	1
Smallberg, H. E.,	*W. Hollywood*	10
Smalley, R. B.,	*Willits*	12
Smallwood, W. C.,	*Long Beach*	10
Smart, E. P.,	*Olive View*	10
Smedley, R. C.,	*Los Angeles*	10
Smiley, H. W.,	*Indio*	18
Smiley, K. E.,	*Los Angeles*	10
Smitgen, P. H.,	*Los Angeles*	10
Smith, A. E.,	*Los Angeles*	10
Smith, A. M.,	*Oakland*	1
Smith, A. S. J.,	*San Jose*	28
Smith, B.,	*Los Angeles*	10
Smith, B. H.,	*Santa Monica*	10
Smith, B. H.,	*Huntington Park*	10
Smith, C. E.,	*San Francisco*	23
Smith, C. L.,	*Maywood*	10
Smith, C. R.,	*Los Angeles*	10
Smith, D. A.,	*Oakland*	23
Smith, D. V.,	*Long Beach*	10
Smith, E. D.,	*Solvang*	27
Smith, E. G.,	*Oakland*	1
Smith, E. W.,	*San Francisco*	11
Smith, F. H.,	*San Bruno*	26
Smith, G. F.,	*Los Angeles*	10
Smith, H.,	*Los Angeles*	10
Smith, H. A.,	*Whittier*	10
Smith, H. C.,	*Glendale*	10
Smith, H. G.,	*Palo Alto*	28
Smith, H. H.,	*Los Angeles*	10
Smith, H. J.,	*Oakland*	1
Smith, H. L.,	*Fair Oaks*	19
Smith, H. MacV.,	*Santa Ana*	16
Smith, J.,	*Bakersfield*	8
Smith, J. J. H.,	*Blythe*	18
Smith, J. L.,	*Los Angeles*	10
Smith, K. B.,	*Oakland*	1
Smith, L. E.,	*Hollister*	20
Smith, L. E.,	*San Bernardino*	21
Smith, M.,	*Los Angeles*	10
Smith, N. R.,	*Monterey Park*	10
Smith, P. M.,	*San Francisco*	23
*Smith, R.,	*Los Angeles*	10
§Smith, R. C.,	*Superior, Wis*	10
Smith, R. D.,	*Pomona*	10
Smith, R. D.,	*San Pedro*	10
Smith, R. E.,	*Los Angeles*	10
Smith, R. K.,	*San Francisco*	23
Smith, R. L.,	*Pomona*	10
Smith, R. L. I.,	*Pasadena*	10
Smith, R. M.,	*Glendale*	10
Smith, R. M.,	*Riverside*	18
Smith, R. N.,	*Los Angeles*	10
¶Smith, R. T.,	*Pomona*	10
Smith, S.,	*Pasadena*	10
Smith, S. K.,	*Oakland*	1
Smith, T. B.,	*Wilmington*	10
Smith, W.,	*Los Angeles*	10
Smith, W. B.,	*Los Angeles*	10
Smith, W. B.,	*San Francisco*	23
Smith, W. B.,	*Delano*	7
Smith, W. S.,	*San Diego*	22
Smithies, H. R.,	*Alameda*	1
Smolt, C. A.,	*Ventura*	37
Smolt, L. P.,	*Ventura*	37
Smylie, R. S.,	*San Diego*	22
Smyth, F. S.,	*San Francisco*	23
Smyth, M. H.,	*Stockton*	24
Smyth, R. J.,	*Cayucos*	25
Smythe, H.,	*Stockton*	24
Sneden, C. M.,	*Long Beach*	10
Snoddy, C. A.,	*Vallejo*	32
Snook, H. J.,	*Oakland*	1
Snow, H. L.,	*San Pedro*	10
Snow, W. F.,	*New York, N. Y.*	28
Snure, H.,	*Los Angeles*	10
Snyder, A. D.,	*Los Angeles*	10
Snyder, C. C.,	*Pasadena*	10
Snyder, G. A.,	*West Los Angeles*	10
Snyder, G. S.,	*San Francisco*	23
‡Snyder, W. H.,	*Hollywood*	10
Sobey, G. L.,	*Paso Robles*	25
Soderstrom, E. M.,	*Chowchilla*	13
Sogemeier, E.,	*San Mateo*	26
Soghor, S.,	*Los Angeles*	10
Sohler, F. E.,	*Healdsburg*	33
Soiland, A.,	*Los Angeles*	10
Sokol, L. I.,	*Los Angeles*	10
Solomon, J. C.,	*Los Angeles*	10
Solomon, W. O.,	*Oakland*	1
Somerfield, H. A.,	*San Francisco*	23
Somers, M. R.,	*San Francisco*	23
Sommer, E. A.,	*Chino*	21
Sonnenberg, A.,	*San Francisco*	23
Sooy, D. W.,	*San Francisco*	23
Soper, H. V.,	*Los Angeles*	10
Sorauf, B. M.,	*Fresno*	4
Sornsen, A. A.,	*Los Angeles*	10
Sosnowski, K. C.,	*Long Beach*	10
Soto-Hall, R.,	*San Francisco*	23
Soutar, R. G.,	*Sacramento*	19
Southgate, Paul T.,	*Long Beach*	10
Spalding, A. B.,	*San Francisco*	23
Spalding, C. A. H.,	*Richmond*	3
Spalding, J. B.,	*Richmond*	3
Spalding, R. B.,	*San Francisco*	23
Spaulding, A. Q.,	*Santa Barbara*	27
Spaulding, J. M.,	*Los Angeles*	10
Spear, E. B.,	*Los Angeles*	10
Spear, J. L.,	*Santa Rosa*	33
Speer, G. G.,	*Los Angeles*	10
Speik, F. A.,	*Los Angeles*	10

NAME	CITY	COUNTY SOCIETY NO.
Spencer, G. A.	*Sacramento*	19
Spencer, R. M.	*Los Angeles*	10
Sperling, S.	*Los Angeles*	10
Spicer, W. H.	*Cucamonga*	21
Spiers, H. W.	*Los Angeles*	10
‡Spitalny, A.	*San Francisco*	23
Sprague, B. H.	*Los Angeles*	10
Sprague, G. T.	*Van Nuys*	10
Sprauer, V. J.	*Los Angeles*	10
Spruance, H. E.	*San Diego*	22
Staatz, A. D.	*Olive View*	10
Stabel, F.	*Redding*	30
Stabel, J. A.	*Colfax*	19
Stadfield, C. G.	*Hollywood*	10
Stadlinger, K. P.	*Burbank*	10
Stadtherr, E. F.	*San Francisco*	23
Stadtmuller, E. S.	*San Francisco*	23
Stafford, C. E.	*Los Angeles*	10
Stafford, D. D.	*Alameda*	1
Stafford, H. E.	*Oakland*	1
Stafford, O. R.	*Los Angeles*	10
Stahl, W. F.	*Los Angeles*	10
Stailey, H. D.	*Los Angeles*	10
Staniford, K. J.	*Fresno*	4
Stanley, L. L.	*San Rafael*	11
Stanton, E. H.	*Glendora*	10
Stanton, F. E.	*Long Beach*	10
Stanton, R. H.	*Pasadena*	10
Starbird, G. A.	*King City*	14
Stark, B. W.	*San Francisco*	23
Stark, J. H.	*Oakland*	1
Stark, M.	*Los Angeles*	10
Starr, R. W.	*Los Angeles*	10
Staub, J. S.	*San Jose*	28
Stauffer, M. L.	*Pittsburg*	3
Stealy, C. L.	*San Diego*	22
Steddom, F. W.	*Los Angeles*	10
Steele, A. A.	*Los Angeles*	10
Steele, A. B.	*Santa Barbara*	27
Steele, E. H.	*Los Angeles*	10
Steele, J. T.	*Dunsmuir*	31
Steele, M. T.	*Los Angeles*	10
Steen, C. E.	*Brea*	16
Steen, E. J.	*Fullerton*	16
Steere, R. A.	*Downey*	10
Steffy, J. L.	*Santa Monica*	10
Stegeman, W.	*Crescent City*	5
Stein, C.	*Bellflower*	10
Stein, J. L.	*Albany*	1
Stein, W. F.	*Fresno*	4
Steinberg, J.	*Los Angeles*	10
Steinmetz, A. F.	*Hayward*	1
Steiss, C. F.	*San Francisco*	23
Stelhorn, A. F.	*Rosemead*	10
Stellar, R. W.	*Wilmington*	10
Stephens, B. M.	*Alameda*	1
Stephens, B. P.	*Oakland*	1
Stephens, E.	*Beverly Hills*	10
Stephens, H. W.	*San Francisco*	23
Stephens, J. S.	*Los Angeles*	10
Stephens, P. H.	*Los Angeles*	10
Stephens, W. B.	*Alameda*	1
Stephens, W. C.	*Pasadena*	10
Stephenson, H. A.	*San Francisco*	23
*Stern, A. A.	*Sacramento*	19
Stern, R. G.	*Los Angeles*	10
Steven, R. A.	*San Francisco*	23
Stevens, C. S.	*Santa Barbara*	27
Stevens, G. M.	*Los Angeles*	10
Stevens, G. R.	*San Diego*	22
Stevens, J. B.	*Los Angeles*	10
Stevens, W. E.	*San Francisco*	23
Stevens, W. L.	*Baldwin Park*	10
Stevenson, A. P.	*Torrance*	10
Stevenson, G. L.	*Sacramento*	19
Stevenson, S. L.	*San Francisco*	23
Stewart, A. E.	*Los Angeles*	10
Stewart, C. W.	*Hollywood*	10
Stewart, H. B.	*Ripon*	34
Stewart, H. J.	*San Diego*	22
Stewart, S. F.	*Los Angeles*	10
Stewart, W.	*Los Angeles*	10
St. Geme, J. W.	*Los Angeles*	10
Stibbens, F. H.	*Oakland*	1
Stickler, J. H.	*Pasadena*	10
Stiles, F. E.	*San Francisco*	23
Stilson, G. D.	*Long Beach*	10
Stilwell, L. E.	*Hollywood*	10
Stimson, C. A.	*Petaluma*	33
Stirewalt, H. W.	*Concord*	3
St. John, A. H. V.	*Los Angeles*	10
Stoddard, C. L.	*San Diego*	22
Stoddard, J. McC.	*Beverly Hills*	10
Stoddard, T. A.	*San Francisco*	23
Stoker, E. M.	*San Francisco*	23
Stoll, A. H.	*Oxnard*	37
Stolle, F.	*Dixon*	32
Stolz, C. E.	*Los Angeles*	10
Stolz, H. R.	*Berkeley*	1
Stone, B.	*San Francisco*	23
Stone, C. S.	*Santa Barbara*	27
Stone, E. M.	*Oceanside*	22
Stone, R. S.	*San Francisco*	23
Stone, W. J.	*Pasadena*	10
Stookey, L. J.	*San Francisco*	23
Stoops, R. P.	*Oakland*	1
Storey, T. A.	*Stanford University*	28
Stork, V. E.	*Los Angeles*	10
Stoughton, A. V.	*Claremont*	10
Stovall, L.	*Los Angeles*	10
Stowe, O. P.	*Oakland*	1
Stowe, W. P.	*San Francisco*	23
Strahlmann, L.	*San Diego*	22
Strange, S. P.	*San Francisco*	23
Stratford, E. B.	*Los Angeles*	10
Strathearn, H. J.	*Hollywood*	10
Stratton, E. K.	*Bonita, Arizona*	23
Stratton, G. W.	*Marysville*	39
Stratton, J. M.	*Berkeley*	1
Streaker, L. H.	*Goleta*	27
Street, L. A. B.	*Los Angeles*	10
Strickler, D.	*San Francisco*	23
Strickler, J. P.	*San Francisco*	23
Striegel, L. McC.	*Long Beach*	10
Striegel, R. J.	*Long Beach*	10
Strietmann, W. H.	*Oakland*	1
Strong, A. J.	*Santa Paula*	37
Strongin, S.	*Bakersfield*	7
Struble, H. P.	*Hayward*	1
St. Sure, F. A.	*San Diego*	22
Stump, F. M.	*Crescent City*	5
Sturdivant, B. F.	*Pasadena*	10
Sturgeon, C. T.	*Los Angeles*	10
Sturges, R. L.	*Los Angeles*	10
Styan, W. E.	*San Francisco*	26
Sudlow, E. L.	*San Fernando*	10
Suehs, P. E.	*San Francisco*	23
Sugar, H.	*Los Angeles*	10
Suglian, V. V.	*San Francisco*	23
Sullivan, C. S.	*San Jose*	28
Sullivan, J. J.	*Oakland*	1
Sullivan, J. M.	*San Francisco*	23
Sullivan, J. R.	*San Francisco*	23
Sullivan, N. R.	*Santa Cruz*	29
Sullivan, W. J.	*Hollywood*	10
Sulzbacher, C. I.	*Los Angeles*	10
Sumerlin, H. S.	*San Diego*	22
Sumner, W. A.	*San Francisco*	23
Sundberg, R. H.	*San Diego*	22
Sundin, P. O.	*Los Angeles*	10
Supple, A. J.	*South Pasadena*	10
Suski, P. M.	*Los Angeles*	10
Susnow, D. A.	*San Francisco*	23
Sutherland, K. H.	*Santa Ana*	16
Sutherland, P. R.	*Los Angeles*	10
Sutherland, R. T.	*Oakland*	1
Sutherlin, C. G.	*Los Angeles*	10
Sutton, T. L.	*Stockton*	24
Svoboda, F. C.	*San Diego*	22
Swanson, C. F.	*Los Angeles*	10
Swarts, R. E.	*San Francisco*	26
Swauger, L. S.	*Oakland*	1
Swearingen, F. C.	*Pomona*	10
Sweeney, J. P.	*Milbrae*	26
Sweet, C. D.	*Oakland*	1
Sweet, E.	*Los Angeles*	10
‡Sweet, F. D.	*Long Beach*	10
Sweetser, G. W.	*Martinez*	3
Swett, W. F.	*San Francisco*	23
Swezey, S.	*Los Angeles*	10
Swift, L. M.	*Marysville*	39
Swigart, M.	*Monterey*	14
Swim, W. A.	*Los Angeles*	10
Swindt, J. K.	*Pomona*	10
Swinney, R. W.	*Long Beach*	10
Syer, W. H.	*Los Angeles*	10
Syman, L. W.	*Los Angeles*	10
Symonds, C. W.	*Pasadena*	10
Szukalski, J. P.	*Pasadena*	10

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NAME	CITY	COUNTY SOCIETY NO.
Taber, K. W.	*Pasadena*	10
Taber, L. E.	*San Francisco*	23
Taggart, M. M.	*McFarland*	7
Talbott, E. M.	*San Francisco*	23
Talbott, G. M.	*San Francisco*	23
Talmage, C. H.	*Sanitarium*	15
Taltavall, W. A.	*Redlands*	21
Tandowsky, R. M.	*Hollywood*	10
Tanner, C. O.	*San Diego*	22
Tarnutzer, B. C.	*Los Angeles*	10
Tarr, E. M.	*Los Angeles*	10
Tatro, R. F.	*Loma Linda*	21
Tattersall, K. L.	*Oakland*	1
Taubles, G. H.	*San Francisco*	23
Taussig, L.	*San Francisco*	23
Taylor, D. A.	*San Francisco*	23
Taylor, E. C.	*San Francisco*	23
Taylor, E. M.	*Oakland*	1
Taylor, F. B.	*Oakland*	1
Taylor, F. W. H.	*Los Angeles*	10
Taylor, G. M.	*Los Angeles*	10
Taylor, L. E.	*Los Angeles*	10
Taylor, L. H.	*Oakland*	1
Taylor, P. A.	*San Francisco*	23
Taylor, R. G.	*Los Angeles*	10
Taylor, R. N.	*Long Beach*	10
Taylor, R. O.	*San Diego*	22
Taylor, R. T.	*Los Angeles*	10
Taylor, W.	*Martinez*	3
Teaby, W. L.	*Monterey*	14
‡Teall, R. C.	*Sacramento*	19
Teass, C. J.	*San Luis Obispo*	25
Tebbe, F. H.	*Oakland*	1
Tebbetts, H. B.	*Los Angeles*	10
Tebbetts, H. E.	*Whittier*	10
Tedstrom, M. K.	*Santa Ana*	16
Teel, A. W.	*Los Angeles*	10
Teeter, A. L.	*Oakland*	1
Tcitler, M. H.	*San Francisco*	23
Temple, R. J.	*Los Angeles*	10
Templeton, H. J.	*Oakland*	1
Templeton, W. K.	*Riverside*	18
Tepper, G. B.	*Los Angeles*	10
Terrill, E. E.	*Los Angeles*	10
Terry, R. A.	*Long Beach*	10
Terry, W. I.	*San Francisco*	23
Thayer, L. E.	*Los Angeles*	10
Thebaut, W. M., Jr.	*Oakland*	1
Theime, D. A.	*Los Angeles*	10
Thelander, H. E.	*San Francisco*	23
Thelen, E.	*San Diego*	22
Thibodeau, J. A.	*San Francisco*	23
Tholen, E. F.	*Los Angeles*	10
Thomas, B.	*Oakland*	1
Thomas, B. S.	*Sacramento*	19
Thomas, E. W.	*Bieber*	24
Thomas, H. G.	*Oakland*	1
Thomas, J. B.	*Palo Alto*	28
Thomas, R. E.	*Los Angeles*	10
Thomas, V. E.	*Alhambra*	10
Thomas, W. C.	*Long Beach*	10
Thomas, W. McL.	*San Diego*	22
Thomason, G.	*Los Angeles*	10
Thomason, S. D.	*San Dimas*	10
Thompson, A. C.	*Mountain View*	28
Thompson, A. R.	*Rio Vista*	32
Thompson, C. P.	*San Francisco*	23
Thompson, C. V.	*Pescadero*	26
Thompson, C. V.	*Lodi*	24
Thompson, C. W.	*Pasadena*	10
Thompson, D. E.	*Red Bluff*	35
Thompson, E. E.	*Red Bluff*	35
Thompson, E. H.	*Burbank*	10
Thompson, H. A.	*San Diego*	21
Thompson, H. D.	*Los Angeles*	10
Thompson, H. F.	*Los Angeles*	10
Thompson, H. L.	*Los Angeles*	10
Thompson, H. L.	*Long Beach*	10
Thompson, I. B.	*Sonora*	24
Thompson, J. E.	*Los Angeles*	10
Thompson, K. J.	*Oakland*	1
Thompson, L. O.	*San Diego*	22
Thompson, L. R.	*San Pedro*	10
Thompson, O. E.	*Riverside*	18
Thompson, R. C.	*Whittier*	10
‡Thompson, R. H.	*Los Angeles*	10
Thompson, R. J.	*Los Angeles*	10
Thompson, R. L.	*Burbank*	10
Thompson, V. P.	*Los Angeles*	10
Thompson, W. B.	*Los Angeles*	10
Thomson, A. M.	*Santa Rosa*	33
Thomson, D.	*Burbank*	10
Thomson, H. S.	*San Francisco*	23
Thomson, R. R.	*Oakland*	1
Thomson, W. L.	*San Francisco*	23
Thoren, M. E.	*Weimar*	17
Thornburg, H. D.	*Los Angeles*	10
Thorne, I. W.	*San Francisco*	23
Thorner, M.	*Santa Barbara*	27
Thornton, A. J.	*San Diego*	22
Thornton, J.	*Los Angeles*	10
‡Thorp, T. F.	*San Andreas*	5
Thorpe, A. C.	*Los Angeles*	10
Thorpe, F.	*Hollywood*	10
Thorpe, L. S.	*Los Angeles*	10
Threlfall, D. R.	*San Jose*	28
Thunen, P. E.	*Marysville*	39
Thurber, F.	*Hollywood*	10
Thurber, P.	*Los Angeles*	10
Thuresson, P. F.	*Riverside*	18
Thurlow, A. A.	*Santa Rosa*	33
Tiber, L. J.	*Los Angeles*	10
Tice, E. W.	*Los Angeles*	10
Tickell, A. H.	*Nevada City*	17
Tiffany, D. F. E.	*San Jose*	28
Tiffany, E. V.	*Oakland*	1
Tillman, F. J.	*Fresno*	4
Tillman, T. E.	*San Francisco*	23
Tillmanns, C. S. J.	*Los Angeles*	10
Tillotson, J. E.	*Woodland*	38
Tillotson, R. S.	*Sacramento*	19

NAME	CITY	COUNTY SOCIETY NO.
Timme, A. R.,	*Los Angeles*	10
Timon, A. N.,	*Los Angeles*	10
Tipton, S. P.,	*Watsonville*	29
Tisinger, E. L.,	*San Bernardino*	21
Titcomb, L. R.,	*Los Angeles*	10
Titus, C. I.,	*Sacramento*	19
Titus, J. H.,	*Ontario*	21
Tobias, M.,	*Los Angeles*	10
Tobin, P. A.,	*San Francisco*	23
Tobriner, O.,	*San Francisco*	23
Tock, E. W.,	*Santa Ana*	16
Todd, H. A.,	*Visalia*	36
Todd, J. B.,	*Los Angeles*	10
Toffelmier, D. D.,	*Oakland*	1
Toland, C. G.,	*Los Angeles*	10
Tollefson, D. G.,	*Los Angeles*	10
Toller, R. B.,	*Talmage*	12
Tolman, G. P.,	*Watsonville*	29
Tomlinson, R. F.,	*San Francisco*	23
Toomey, F. E.,	*San Diego*	22
Topham, E.,	*San Francisco*	23
Topping, F. P.,	*Sacramento*	19
Torell, G. J.,	*Los Angeles*	10
Torrano, M. A.,	*Oakland*	1
Torre, E. D.,	*San Francisco*	23
Torrens, A. S.,	*Hanford*	8
Torrey, F. A.,	*San Francisco*	23
Torrey, H. B.,	*Stanford University*	28
Totten, H. P.,	*Los Angeles*	10
Tourtillot, W. W.,	*Porterville*	36
Tow, J. E.,	*San Diego*	22
Towne, E. B.,	*San Francisco*	23
Townsend, C. E.,	*Los Angeles*	10
Townsend, K.,	*Los Angeles*	10
Traber, C. H.,	*Reedley*	4
Trainor, J. V.,	*Los Angeles*	10
Trainor, M. E.,	*South Pasadena*	10
Trauner, L. M.,	*San Francisco*	23
Traver, C. M.,	*Patton*	21
Tretheway, L. E.,	*Manteca*	24
Treweek, D. N.,	*Los Angeles*	10
*Trewhella, J. S.,	*Montebello*	10
Trick, T. R.,	*Los Angeles*	10
Trimble, H. G.,	*Oakland*	1
Trimmer, E. L.,	*Los Angeles*	10
Trott, L. d'N.,	*Santa Ana*	16
Trotter, A. D.,	*Los Angeles*	10
Trowbridge, D. H.,	*Fresno*	4
Truax, J. P.,	*Lompoc*	27
True, H. F.,	*Sacramento*	19
Truman, S. R.,	*Oakland*	1
Truxaw, J. W.,	*Anaheim*	16
Tucker, H.,	*Agnew*	28
Tucker, M. O.,	*Ocean Park*	10
Tucker, R. G.,	*Alhambra*	10
Tullar, A. G.,	*No. Hollywood*	10
Tulley, F. E.,	*San Diego*	22
Tully, J. J.,	*Stockton*	24
Tunnell, A. M.,	*Lodi*	24
Tupper, R. B.,	*Fresno*	4
Turbow, A. O.,	*Los Angeles*	10
Turco, E. A.,	*San Jose*	28
Turkel, A. S.,	*Los Angeles*	10
Turley, J. G.,	*Los Angeles*	10
Turnbull, F. M.,	*Los Angeles*	10
Turner, E. C.,	*Sacramento*	19
Turner, J. H.,	*Huntington Park*	10
Tuteur, E. B.,	*Los Angeles*	10
Tuttle, S.,	*San Francisco*	23
Twitchell, E. W.,	*San Francisco*	23
Tyler, L. G.,	*San Rafael*	11
Tyroler, F. N.,	*Los Angeles*	10
Tyrrell, J. B.,	*Victorville*	21

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Uhl, G. M.,	*Woodland*	38
Uhls, R. T.,	*Long Beach*	10
Ullmann, H. J.,	*Santa Barbara*	27
Unsinger, H. F.,	*San Francisco*	23
Updegraff, H. L.,	*Hollywood*	10
Up de Graff, T. S.,	*Pasadena*	10
Upshaw, H. T.,	*Pasadena*	10
Ussher, N. T.,	*Santa Barbara*	27
Utter, J. W.,	*Anaheim*	16
Uyeyama, H.,	*Oakland*	1
Uyeyama, K.,	*San Francisco*	23

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NAME	CITY	COUNTY SOCIETY NO.
Vachout, M. A.,	*Southgate*	10
Vallee, J. E.,	*Los Angeles*	10
Van Allen, L. K.,	*Ukiah*	12
Vance, H. W.,	*Pasadena*	10
Vance, J. T.,	*Sacramento*	19
Van Cott, W. B.,	*Los Angeles*	10
Van Dalsem, S. B.,	*San Jose*	28
Van Dalsem, W. S.,	*San Jose*	28
Van Den Berg, W. J.,	*Sacramento*	19
Vanderburgh, C. M.,	*Fresno*	4
Van de Pol, A.,	*Modesto*	34
Van der Leek, P.,	*Stockton*	24
Van Deventer, W. C.,	*Redwood City*	23
Vandever, G. V.,	*Oakland*	1
Van Dyke, H. M.,	*Long Beach*	10
Van Eman, O. H.,	*El Centro*	6
Van Fleet, H. D.,	*Los Angeles*	10
Van Meter, A. L.,	*Stockton*	24
Van Meter, F. J.,	*Norwalk*	10
Van Nuys, R. G.,	*Berkeley*	1
Van Ornum, E. N.,	*Los Angeles*	10
Van Paing, J. F.,	*Santa Barbara*	27
Van Pelt, R. S.,	*Los Angeles*	10
Van Sciver, C. B.,	*Los Angeles*	10
Van Scoyoc, J. G.,	*Los Angeles*	10
Van Sickle, J. R.,	*Santa Monica*	10
Van Soest, E. H.,	*Los Angeles*	10
Van Vorhis, J. H.,	*Corcoran*	8
Van Wagenen, R. J.,	*Fresno*	4
*Van Zwalenburg, C.,	*Riverside*	18
Varden, A. E.,	*San Bernardino*	21
Vardon, C. C.,	*Los Angeles*	10
Vardon, E. M.,	*Los Angeles*	10
Vaughan, L. B.,	*Long Beach*	10
‡Vaughn, J. O.,	*Santa Monica*	10
Vecki, M. E.,	*San Francisco*	23
Vener, H. I.,	*Sawtelle*	10
Venzke, H.,	*Pasadena*	10
Veon, J. E.,	*Bakersfield*	7
‡Verbryck, G. G.,	*Long Beach*	10
Verne, V. E.,	*Long Beach*	10
Viau, B. H.,	*Sanger*	4
Vickerson, J. I.,	*Oakland*	1
Vidgoff, I. J.,	*Los Angeles*	10
Vidrickson, H. L.,	*Weed*	31
Viecelli, J. D.,	*San Francisco*	23
Vieira, E.,	*Sebastopol*	33
Vieira, F. G.,	*Stockton*	24
Vinetz, J. C.,	*Los Angeles*	10
Vinks, W. A.,	*Lincoln*	17
Viole, P. P.,	*Los Angeles*	10
Violett, C. C.,	*Garden Grove*	16
Visalli, J.,	*San Francisco*	23
Vischl, G. J. J.,	*Stockton*	24
Visscher, L. G.,	*Los Angeles*	10
Vizzard, W. R.,	*San Francisco*	23
‡Vogelman, J.,	*San Jose*	28
Voight, C. E.,	*San Francisco*	23
Vollert, A. J.,	*San Francisco*	23
Vollmer, A. M.,	*San Francisco*	23
Vollmer, H. W.,	*Sanitarium*	15
von Briesen, H.,	*Los Angeles*	10
Von der Lieth, H. O.,	*San Francisco*	23
von Geldern, C. E.,	*Sacramento*	19
von Geldern, H.,	*San Francisco*	23
Von Hagen, K. O.,	*Los Angeles*	10
Von Hungen, A. P.,	*Escalon*	34
von Wedelstaedt, B.,	*Long Beach*	10
Voorhees, G. L.,	*Los Angeles*	10
Voorhees, H. M.,	*Los Angeles*	10
Voorsanger, W. C.,	*San Francisco*	23
*Vowinckel, F. W.,	*San Francisco*	1
Vruwink, J.,	*Los Angeles*	10

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NAME	CITY	COUNTY SOCIETY NO.
Waddell, D. Q.,	*Los Angeles*	10
Waddell, W. E.,	*Los Angeles*	10
Wade, A. B.,	*Santa Ana*	16
Wade, L. T.,	*San Luis Obispo*	25
Wade, R. S.,	*Santa Ana*	16
Wagner, A. F.,	*Los Angeles*	10
Wagner, L. D.,	*Pasadena*	10
Wahl, H. A.,	*San Francisco*	23
Wahle, H.,	*Oakland*	1
Wahlen, J. A.,	*Montebello*	10
Wahrhaftig, M. J.,	*Fresno*	4
Waitzfelder, F.,	*Los Angeles*	10
Wakefield, R. F.,	*Pasadena*	10
Wald, H. A.,	*So. San Francisco*	23
Wales, J. LeR.,	*Long Beach*	10
Walker, A. W.,	*Riverside*	18
Walker, B. F.,	*Fresno*	4
Walker, C. A.,	*San Francisco*	23
Walker, C. B.,	*Los Angeles*	10
Walker, G. W.,	*Fresno*	4
Walker, J. D.,	*Los Angeles*	10
Walker, J. E.,	*Long Beach*	10
Walker, J. R.,	*Fresno*	4
Walker, P. J.,	*Los Angeles*	10
Walker, R. A.,	*Alhambra*	10
Walker, R. S.,	*Oakland*	1
Walker, W. H.,	*Willows*	38
Wall, H. W.,	*Hollywood*	10
Wallace, A.,	*Los Angeles*	10
Wallace, C. T.,	*Eureka*	5
Wallace, E. P.,	*Los Angeles*	10
Wallace, W. S.,	*Orange*	16
Wallach, I. A.,	*Los Angeles*	10
Wallentine, N. R.,	*Long Beach*	10
Waller, G. P., Jr.,	*Los Angeles*	10
Waller, L. M.,	*Hollywood*	10
Wallerius, R. M.,	*Sacramento*	19
Walrath, G. B.,	*Los Angeles*	10
Walsh, F. D.,	*Oakland*	1
Walsh, J. F.,	*Eureka*	5
Walter, F. J.,	*San Diego*	22
Walters, C. M. C.,	*Los Angeles*	10
Walters, H. S.,	*San Luis Obispo*	25
Walters, P. R.,	*Berkeley*	1
Walton, H. M.,	*Loma Linda*	21
Walton, R. R.,	*Linwood*	10
Warburton, J. A.,	*Burlingame*	26
Ward, R.,	*San Francisco*	23
Wardrip, B. H.,	*San Jose*	28
Ware, E. R.,	*Los Angeles*	10
Ware, J. G.,	*Santa Barbara*	27
Warmer, C. A.,	*Los Angeles*	10
Warner, H. E.,	*Los Angeles*	10
Warner, O. H.,	*San Diego*	22
Warnock, A. W.,	*San Pedro*	10
Warnshuis, F. C.,	*San Francisco*	23
Warren, H. C.,	*Belmont*	26
Warren, J. P.,	*San Francisco*	23
Warren, J. W.,	*Los Angeles*	10
‡Warren, J. W.,	*National City*	22
Washburn, W. W.,	*San Francisco*	23
Watanabe, L. M.,	*San Jose*	28
Waters, P. S.,	*Patton*	21
Waters, Z. O.,	*San Francisco*	23
‡Watke, L. E.,	*Tulare*	36
Watkins, L. H.,	*Pasadena*	10
Watkins, W. E.,	*Santa Ana*	16
Watson, A. R.,	*Eureka*	5
Watson, F. V.,	*Hollywood*	10
Watson, H. G.,	*San Francisco*	23
Watson, L. F.,	*Los Angeles*	10
Watson, R. G.,	*Oakland*	1
Watson, T.,	*Sunnyvale*	28
Watters, E. M.,	*Santa Cruz*	29
Watters, H. G.,	*Watsonville*	29
Waxman, A.,	*Los Angeles*	10
Way, S. C.,	*San Francisco*	23
Wayburn, E.,	*San Francisco*	23
Wayland, C.,	*San Jose*	28
Wayland, C. A.,	*San Jose*	28
Wayland, R. T.,	*Glendale*	10
Wayte, E. W.,	*Norwalk*	10
*Weaver, A. C.,	*Santa Monica*	10
Weaver, C. H.,	*Los Angeles*	10
Weaver, D. D.,	*Oakland*	1
Weaver, L. W.,	*Oakland*	1
Webber, W. T.,	*Long Beach*	10
Weber, A. L.,	*Upland*	21
Weber, W. L.,	*Los Angeles*	10
Webster, D. P.,	*Fresno*	4
Webster, G. M.,	*Patton*	21
Webster, J. C.,	*Los Angeles*	10
Webster, J. S.,	*Mariposa*	13
Webster, O. L.,	*Holtville*	6
Weddle, C.,	*Dinuba*	36
Wedgewood, P. E.,	*San Diego*	22
Weeks, A.,	*San Francisco*	23
Wegeforth, H. M.,	*San Diego*	22
*Weger, G. S.,	*Redlands*	21
Wehrly, J.,	*Santa Ana*	16
Wehrly, W. S.,	*Santa Ana*	16
Weil, S. N.,	*Rodeo*	3
Weinberg, S. L.,	*Los Angeles*	10
Weinberger, J.,	*New York, N. Y.*	22
Weiner, W. M.,	*San Francisco*	23
Weirich, E. W.,	*Angels Camp*	24
Weiser, A. D.,	*Los Angeles*	10
Weiskotten, W. O.,	*San Diego*	22
Weiss, K. F.,	*Visalia*	36
Weitkamp, A. H.,	*Los Angeles*	10
Welbourn, L. S.,	*Van Nuys*	10
Welbourn, M. A.,	*Los Angeles*	10
Welbourn, P. M.,	*Los Angeles*	10
Welch, E. H.,	*Pomona*	10
Welch, S. H.,	*Glendale*	10
Welcome, E. H.,	*Downey*	10
Welfer, C. R.,	*Los Angeles*	10
Weller, T. W.,	*Oakland*	1
Wellman, O. F.,	*San Pedro*	10
Wells, C. E.,	*Woodlake*	36
Wells, E. W.,	*Los Angeles*	10
Wells, G. D.,	*Los Angeles*	10
Wells, J. T.,	*San Diego*	22
Wells, M. C.,	*Los Angeles*	10
Wells, P. H.,	*Lower Lake*	15
Wells, S. J.,	*Sacramento*	19
Welpton, M. A.,	*San Diego*	22
Welsh, O. A.,	*Ventura*	37
Welti, L.,	*Napa*	15
Wemple, E. L.,	*Verdugo City*	10
Werden, D. H.,	*San Diego*	22

NAME	CITY	COUNTY SOCIETY NO.
Werlich, R. E.,	*San Diego*	22
Werner, E.,	*Los Angeles*	10
Werthmann, P. A.,	*Gustine*	13
‡Wessley, W. D.,	*Glendale*	10
Wessels, W. F.,	*Los Angeles*	10
Wesson, M. B.,	*San Francisco*	23
West, F. D.,	*Beaumont*	18
West, H. F.,	*Los Angeles*	10
Weston, F. P.,	*Pasadena*	10
Weston, F. W.,	*Tustin*	16
Westphal, H. G.,	*Glendale*	10
Wetherill, G. G.,	*Palo Alto*	28
Wetmore, C. T.,	*Berkeley*	1
Wever, G. K.,	*Stockton*	24
*Weymann, M. F.,	*Los Angeles*	10
Whalen, J. F.,	*Altadena*	10
Whalen, T. J.,	*San Francisco*	23
Whalman, H. F.,	*Los Angeles*	10
Wheatley, W. G.,	*Azusa*	10
*Wheeler, I. A.,	*Colfax*	33
Wheelis, J. M.,	*Los Angeles*	10
Whitaker, L. S.,	*San Jose*	28
Whitcomb, E. L.,	*Los Angeles*	10
White, A. S.,	*San Francisco*	23
White, H. L.,	*Redding*	35
White, J. F.,	*San Diego*	22
White, J. H.,	*Chico*	2
White, L. F.,	*Los Angeles*	10
‡White, M. D.,	*Ontario*	21
White, P. G.,	*Los Angeles*	10
Whitelock, T. S.,	*San Diego*	22
Whitelock, T. S., Jr.,	*San Diego*	22
Whiting, F. M.,	*Oroville*	2
Whitlow, J. E.,	*Fillmore*	10
Whitmer, C. F.,	*Colton*	21
*Whitney, J. L.,	*San Francisco*	23
Whittaker, L. F.,	*Huntington Beach*	16
Wickman, H. J.,	*Riverside*	18
Wiebe, D.,	*Reedley*	4
Wiebe, F. E.,	*Soledad*	14
Wiebusch, E. G. L.,	*Los Angeles*	10
Wiel, H. I.,	*San Francisco*	23
Wier, T. F.,	*San Diego*	22
Wiese, W. F.,	*Fresno*	4
Wightman, A. H.,	*Laguna Beach*	16
Wilbur, B. C.,	*Palo Alto*	28
Wilbur, R. L.,	*Stanford University*	23
Wilcox, A. B.,	*Santa Barbara*	27
Wilcox, C. F.,	*Huntington Park*	10
Wilcox, M. R.,	*Los Angeles*	10
Wilcox, R. W.,	*Long Beach*	10
Wilder, E. M.,	*Sacramento*	19
Wiley, E. H.,	*Los Angeles*	10
Wiley, H. J.,	*Huntington Park*	10
Wilhelm, L. F. X.,	*Los Angeles*	10
Wilhoit, J. W.,	*Ocean Beach*	22
Wilke, J. O.,	*Hermosa Beach*	10
Wilken, H. T.,	*Santa Monica*	10
Wilkinson, A. J.,	*San Diego*	22
Wilkinson, A. M.,	*Hollywood*	10
Willard, W. P.,	*San Francisco*	23
Willcutt, G. H.,	*San Rafael*	11
‡Willems, L. C.,	*Glendale*	10
Williams, A. H.,	*Belmont*	27
Williams, A. J.,	*San Francisco*	23
Williams, C. G.,	*Los Angeles*	10
Williams, D. B.,	*Colton*	21
Williams, D. B.,	*Veterans Home*	15
Williams, E. H.,	*Los Angeles*	10
Williams, F.,	*San Francisco*	23
Williams, F. F., Jr.,	*Patton*	21
Williams, J.,	*Eldridge*	33
Williams, J. B.,	*Los Angeles*	10
Williams, J. C.,	*San Francisco*	23
Williams, N. H.,	*Los Angeles*	10
Williams, P. M.,	*Los Angeles*	10
Williams, R.,	*Los Angeles*	10
Williams, W. F.,	*Oakland*	1
Williamson, M. A.,	*Lone Pine*	7
Williamson, M. C.,	*Upland*	21
Williamson, N. E.,	*Stockton*	24
Willier, A. F.,	*San Diego*	22
Willis, H. Q.,	*Balboa*	16
Willits, E. K.,	*San Francisco*	23
Wills, C. A.,	*Oakland*	1
Wills, I.,	*Santa Barbara*	27
Willson, L. R.,	*Fresno*	4
Wilmar, A. H.,	*Paso Robles*	25
Wilson, A. D.,	*Palm Springs*	18
Wilson, C.,	*Los Angeles*	10
Wilson, C.,	*Santa Barbara*	14
Wilson, C. G.,	*Palo Alto*	28
Wilson, D. R.,	*San Jose*	28
Wilson, G.,	*Sacramento*	19
Wilson, G. W.,	*Los Angeles*	10
Wilson, H. F.,	*San Francisco*	23
Wilson, H. H.,	*Los Angeles*	10
Wilson, H. P.,	*Whittier*	10
Wilson, H. R.,	*Modesto*	34
Wilson, H. S.,	*N. Hollywood*	10
Wilson, J. B.,	*San Francisco*	23
Wilson, J. C.,	*San Jose*	28
Wilson, J. C.,	*Los Angeles*	10
Wilson, J. D.,	*Berkeley*	1
Wilson, J. M.,	*Pasadena*	10
Wilson, J. W.,	*San Francisco*	23
Wilson, J. W., Jr.,	*Los Angeles*	10
Wilson, L. E.,	*Orange*	16
Wilson, K. R.,	*Santa Barbara*	27
Wilson, R. D.,	*Los Angeles*	10
Wilson, W. M.,	*Weaverville*	30
Wimmer, S. D.,	*Los Angeles*	10
Wimp, W. H.,	*Pasadena*	10
Winchell, F. S.,	*Madison, Wis.*	1
Wind, E.,	*Hollywood*	10
Wineberg, A. C.,	*Oakland*	1
Wineland, A. J.,	*Los Angeles*	10
Wing, L. A.,	*Eureka*	5
Winn, W. A.,	*Springville*	36
Winnard, W. F. R.,	*Los Angeles*	10
Winslow, A. L.,	*Oakland*	1
Winterberg, W. H.,	*San Francisco*	23
Winternitz, C. D.,	*San Francisco*	23
Winters, W. P.,	*San Diego*	22
Wiper, T. B.,	*San Francisco*	23
Wise, D. C.,	*Pittsburg*	3
Wise, P. L.,	*San Jose*	28
Wiser, F. C.,	*Los Angeles*	10
Wisner, F. B.,	*Marysville*	39
Wissner, L. O.,	*Modesto*	34
Witherbee, H. R.,	*Los Angeles*	10
Witherbee, O. O.,	*Los Angeles*	10
Witter, C. B.,	*Los Angeles*	10
Wold, A. P.,	*Oakland*	1
Wolf, G. L.,	*San Francisco*	23
Wolfe, H. H.,	*Fort Bragg*	12
Wolff, E.,	*San Francisco*	23
Wolff, F. S.,	*San Francisco*	23
Wolff, M. J.,	*Los Angeles*	10
Wolfram, W. H.,	*Cincinnati, Ohio*	27
Wolfsen, L. H.,	*Modesto*	34
Wolfsohn, J. M.,	*San Francisco*	23
Wolfsohn, M.,	*Monterey*	14
‡Wolson, I. E.,	*Los Angeles*	10
Wong, T. A.,	*San Francisco*	23
Wood, C. H.,	*Glendora*	10
Wood, C. L.,	*St. Helena*	15
Wood, D. A.,	*San Francisco*	23
Wood, D. A.,	*San Francisco*	23
Wood, F. W.,	*Alhambra*	10
Wood, G. J.,	*St. Helena*	15
Wood, G. N., Jr.,	*Palo Alto*	28
Wood, H. A.,	*Beaumont*	18
Wood, J. A.,	*Anaheim*	16
Wood, J. G.,	*Los Angeles*	10
Wood, R. F.,	*National City*	22
Wood, W. A.,	*Oakland*	1
Woodard, D. S.,	*Watsonville*	29
Woodhull, C. G.,	*Los Angeles*	10
Woodhull, R. A.,	*Los Angeles*	10
Woods, D. K.,	*San Diego*	22
Woods, D. L.,	*Los Angeles*	10
Woods, L.,	*Oakland*	1
Woods, N. C.,	*Alhambra*	10
Woods, R. A.,	*Los Angeles*	10
Woods, W. W.,	*Alhambra*	10
Woodward, E. B.,	*Monrovia*	10
Woolf, M. S.,	*San Francisco*	23
Woolfan, E. B.,	*Los Angeles*	10
Woolford, J. S.,	*Eureka*	5
Woolsey, C. H.,	*San Francisco*	23
Woolsey, J. H.,	*Woodland*	38
Woolston, W. J.,	*Pasadena*	10
Workman, R. A.,	*Pacific Grove*	14
Worster, W. W.,	*San Gabriel*	10
Worthington, L. C.,	*Bakersfield*	7
Worthington, R. L.,	*San Diego*	22
Wright, B. W.,	*Los Angeles*	10
Wright, C. A.,	*Los Angeles*	10
Wright, H. J.,	*Healdsburg*	33
Wright, J. M.,	*Pasadena*	10
Wright, La V.,	*San Francisco*	23
Wright, R. W.,	*Palo Alto*	28
Wright, W. B., Jr.,	*Long Beach*	10
Wright, W. M.,	*Los Angeles*	10
Wrigley, G. C.,	*Sonora*	24
Wrinkle, G. S.,	*Talmage*	12
Wyatt, L. C.,	*Moorpark*	37
Wyckoff, H. A.,	*San Francisco*	23
Wyers, R. E.,	*Spadra*	10
Wylie, C. A.,	*San Bernardino*	21
Wymore, W. W.,	*San Francisco*	23
Wynns, H. LeR.,	*Berkeley*	1

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NAME	CITY	COUNTY SOCIETY NO.
Yabroff, S. W.,	*Oakland*	1
Yaker, D. N.,	*Los Angeles*	10
Yamao, E.,	*Walnut Grove*	19
‡Yates, J. E.,	*Sacramento*	19
Yeagle, R. P.,	*Santa Ana*	16
Yerxa, C. W.,	*Los Angeles*	10
Yoakam, F. A.,	*Moorpark*	37
Yocum, F. W.,	*San Luis Obispo*	25
Yoder, E. H.,	*Los Angeles*	10
Yoell, R. A.,	*San Francisco*	23
Yost, F. O.,	*Los Angeles*	10
Young, B. A.,	*Long Beach*	10
Young, C. S.,	*Los Angeles*	10
Young, D. D.,	*Los Angeles*	10
Young, E. N.,	*San Diego*	22
Young, F. B.,	*Long Beach*	10
Young, F. W.,	*Hollywood*	10
Young, J. H.,	*San Diego*	22
Young, J. W.,	*Beverly Hills*	10
Young, M. L.,	*Los Angeles*	10
Young, N. A.,	*Huntington Park*	10
Young, W. L.,	*Santa Cruz*	29

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Zaiser, H. E.,	*Orange*	16
Zanger, H. G.,	*San Jose*	28
‡Zantiny, W. G.,	*Long Beach*	10
Zaring, B. K.,	*Columbus, Indiana*	10
Zeff, M. G.,	*Berkeley*	1
Zeiler, A. H.,	*Los Angeles*	10
Zeiler, J.,	*Los Angeles*	10
Zeimer, I. S.,	*Stockton*	24
Zelinsky, F.,	*Los Angeles*	10
‡Zeller, W. C.,	*Visalia*	36
Zieber, R. L.,	*Santa Rosa*	33
Zimmerer, S. R.,	*Mecca*	18
Zimmerman, H.,	*Sacramento*	19
Zimmermann, W. T.,	*Los Angeles*	10
Zirker, D. W.,	*Merced*	13
Zirkle, T. I.,	*Loma Linda*	21
Ziskind, E.,	*Los Angeles*	10
Zobel, A. J.,	*San Francisco*	23
Zochert, L. W.,	*La Mesa*	22
Zombro, F. B.,	*Los Angeles*	10
‡Zook, A. J.,	*Burbank*	10
Zorb, G. A.,	*Los Angeles*	10
Zumwalt, E. R.,	*Tulare*	36
Zumwalt, F. H.,	*San Francisco*	23
¶Zumwalt, R. S.,	*San Francisco*	23

* * *

II. ASSOCIATE MEMBERS

Cummins, W. T.,	*San Francisco*	23
Godfrey, E. B.,	*San Bernardino*	21
Leake, C. D.,	*San Francisco*	23
Mosher, C. D.,	*Stanford University*	28
Rusk, G. Y.,	*San Francisco*	23
Weiss, C.,	*San Francisco*	23

* * *

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Goodenow, N. H.,	*Monrovia*	10
Harris, H.,	*San Francisco*	23
Hermann, A. J.,	*Los Angeles*	10
Kalb, G. B.,	*Monrovia*	10
Kellogg, F. B.,	*Santa Monica*	10
King, J. C.,	*Riverside*	18
Liliencrantz, A.,	*Oakland*	1
Perry, W. F.,	*Los Angeles*	10
Sanders, A. O.,	*San Francisco*	10
Shawhan, R. C.,	*Otten, N. C.*	10
Sill, E. R.,	*Oakland*	1

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IV. RETIRED

Allen, F. M.,	*San Diego*	22
Baker, C. Le B. J.,	*Point Loma*	22
Baker, F.,	*Point Loma*	22
Baumeister, E. E.,	*San Francisco*	2
Bogue, H. A.,	*Ontario*	21
Browning, C. C.,	*Los Angeles*	10
Bryan, E. H.,	*Penryn*	17
Clark, J.,	*Gilroy*	28
*Cohn, D.,	*San Francisco*	23
Davis, B.,	*Los Gatos*	13

NAME	CITY	COUNTY SOCIETY NO.
DePuy, E. S.,	*Oakland*	1
Doig, R. L.,	*San Diego*	22
Dunsmoor, N. C.,	*Los Angeles*	10
Evans, G. H.,	*Berkeley*	23
Frederick, M. W.,	*Brentwood*	23
Gatchell, W. LeF.,	*Chico*	2
Goodman, E.,	*San Francisco*	23
Goodridge, H. A.,	*San Jose*	28
Gray, F. P.,	*San Francisco*	23
Grissim, J. D.,	*Oakland*	1
Gunn, Herbert,	*San Francisco*	10
Henderson, J. J.,	*San Francisco*	23
Hogan, J. J.,	*Vallejo*	23
Jean, G. W.,	*Santa Barbara*	27
Kahn, A. J.,	*Los Angeles*	23
Livingston, W. R.,	*Oxnard*	37
Lorini, R.,	*Paris, France*	22
MacDonald, E. A.,	*Beverly Hills*	21
MacLaughlin, W. E.,	*Los Angeles*	10
March, W. B.,	*Burson*	24
McClenahan, H. C.,	*San Francisco*	23
McDaniel, J. L.,	*San Fernando*	10
McKee, A. B.,	*Redwood City*	23
McVey, C. L.,	*Oakland*	1
Melvin, J. T.,	*Porterville*	36
Newman, H. P.,	*San Diego*	22
Pope, E. W.,	*San Francisco*	23
Power, H.,	*Palo Alto*	28
Richter, C. M.,	*San Francisco*	23
Rogers, F. L.,	*Long Beach*	10
Rothganger, G.,	*Oakland*	1
Siebe, E. B.,	*San Francisco*	23
Simmons, G. C.,	*Inverness*	19
Smith, J. F.,	*San Francisco*	23
Somers, H.,	*Morgan Hill*	23
Spencer, J. C.,	*Palo Alto*	23
Spriggs, G. A.,	*Lomita*	23
Taylor, M. C.,	*Stockton*	24
Vecki, V. G.,	*San Francisco*	23
Wall, A. S.,	*Los Angeles*	10
Waller, J. L.,	*San Francisco*	23
Ward, M. W.,	*Woodland*	38
Waterman, H. J.,	*Berkeley*	23
Wheeler, J. S.,	*Santa Cruz*	17
Whiffen, R. A.,	*San Jose*	28
Williams, E. H.,	*San Francisco*	23
Winslow, T. H.,	*Oakland*	1
Worthington, G. B.,	*San Diego*	22
Yager, W. L.,	*Los Angeles*	10
Yates, E. M.,	*Santa Rosa*	33

IN MEMORIAM—1935

Adler, Herman Morris, December 6, 1935, Berkeley.

Barkan, Adolph, August 28, 1935, Zurich, Switzerland.

Baxter, Donald Erskine, July 30, 1935, Glendale.

Bill, Philip August, August 27, 1935, San Francisco.

Blanchard, Lynne Harry, September 5, 1935, Oakland.

Burbank, William Winston, November 29, 1935, Long Beach.

Calder, Daniel H., July 18, 1935, Los Angeles.

Cole, George Llewellyn, August 19, 1935, Los Angeles.

Cressman, Ralph Gates, October 18, 1935, Stockton.

DuBois, Charles Warren, December 17, 1935, Los Angeles.

Dunlap, Florence Mary, November 13, 1935, Brawley.

Floersheim, Samuel, October 3, 1935, Los Angeles.

Garcelon, Harris, August 1, 1935, Arrowhead Springs.

Irwin, Stewart Vernon, July 1, 1935, Oakland.

Johnson, Carl Arthur, November 20, 1935, Imola.

Kapp, Russell William, May 5, 1935, San Jose.

Kiefer, Hugo Albert, October 26, 1935, Los Angeles.

Lynch, Edward Clarence, September 18, 1935, Montebello.

Macrae, Annie D., April 23, 1935, San Francisco.

Madden, Thomas Frederick, September 8, 1935, Fresno.

McNamara, Thaddeus M., Jr., July 15, 1935, Bakersfield.

Nahman, Adolph H., September 18, 1935, San Francisco.

Parsons, James J., October 18, 1935, Monrovia.

Poole, Richard E., June 13, 1935, Yountville.

Rehfisch, John Morse, September 15, 1935, San Francisco.

Ruediger, Gustav F., July 6, 1935, Pasadena.

Schroeder, Leo A., October 29, 1935, Los Angeles.

Smith, Rea, November 29, 1935, Los Angeles.

Shuman, Joseph R., March 10, 1935, Los Angeles.

Silliman, John C., October 27, 1935, Palo Alto.

Stern, Arthur Alonzo, July 11, 1935, Sacramento.

Trewhella, James S., February 11, 1935, Montebello.

Van Zwalenburg, Cornelius, July 23, 1935, Riverside.

Weaver, Archibald Carlton, October 25, 1935, Santa Monica.

Weger, George S., January 16, 1935, Redlands.

Weymann, Morie Frederick, January 13, 1935, Los Angeles.

Whitney, James L., March 12, 1935, San Francisco.

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IN MEMORIAM—1936

Bonta, Maurice Buford, January 5, 1936, Los Angeles.

Graham, John Alexander, January 1, 1936, Barstow.

Hawley, Max Charles, January 1, 1936, Agnew.

Matsumura, Kiyoski, January 5, 1936, San Francisco.

Merrill, Edward Roscoe, February 13, 1936, Santa Barbara.

Oatman, Homer Clifton, January 1, 1936, San Diego.

O'Donnell, Earl William, February 16, 1936, Los Angeles.

Rathbun, William T., January 2, 1936, Colusa.

Rigdon, Rufus Lee, January 21, 1936, San Francisco.

Roath, Clinton, January 26, 1936, Los Angeles.

Rosoff, James A., January 24, 1936, Compton.

Vowinckel, Ferdinand Wilhelm, February 24, 1936, Alameda.

Wheeler, Ira Abbey, January 2, 1936, Colfax.

Reprint from Chicago Daily Tribune, Monday, July 23, 1934

RESULT OF SURVEY OF NATURAL BIRTH CONTROL IS GIVEN

Experts Hold Ogino-Knaus Theory Is Sound

Results of a local study-survey undertaken by the Latz Foundation, a Chicago institution for the promotion of "the natural birth control method" through application of the so-called Ogino-Knaus theory or rhythm theory, were announced by the foundation yesterday. They indicate a favorable reaction to the subject from medical authorities who were cited.

The survey was limited, it was explained, to obtaining opinions on the theory from the heads of gynecological and obstetrical departments of five medical schools in Chicago and from the present and four former presidents of the Chicago Gynecological society. Opinions from a few specialists and general practitioners known to have had experience in the application of the Ogino-Knaus theory also were included.

Latz Explains Purpose

Application of this theory of "the rhythm of fertility and sterility in women," as against the use of contraceptives, is fostered by the Latz Foundation, according to its president, Dr. Leo J. Latz, "for spacing births where physiological or economic reasons warrant such action, and to assist in overcoming apparent inability to have children."

All of the physicians quoted in the results of the survey as released by the Latz Foundation agreed "that the fundamental basis of the Ogino-Knaus theory are scientifically sound." The Latz Foundation is supported by proceeds from the sale of a book, "The Rhythm," by Dr. Latz who is a member of the teaching staff of Loyola University Medical School.

The book is described on its title page as "a discussion of the physiological, practical and ethical aspects of the discoveries of Dr. K. Ogino (Japan) and H. Knaus (Austria) regarding the periods when conception is impossible and when possible."

Dr. Curtis Gives Consensus

After reviewing the findings of the survey, Dr. Arthur H. Curtis, head of the departments of gynecology and obstetrics at Northwestern University and Passavant Memorial Hospital, stated the consensus as follows:

"Apparently it has been demonstrated conclusively by Hartman (Dr. Carl G. Hartman, embryologist of the Carnegie Research Foundation) and others that the egg of the human female does not live longer than approximately a day after it becomes free unless pregnancy occurs.

"It is also now generally accepted that the spermatozoa (the male elements), contrary to former belief, do not live longer than a day, or two days at the most.

Results in Regular Cases

"Finally, we now may state that, in the case of women with regular 28 day cycles, ovulation generally occurs 12 to 16 days before the onset of the cycle.

"In the normal individuals with regular cycles the occurrence of pregnancy is highly improbable except during a few days which begin 16 days before the onset of the cycle.

"There remains little ground to question further the scientific accuracy of these fundamentals. There does remain much ground for investigation on the exceptions which may be expected to occur in the case of this biologic law like all others.

"Moreover, there is great need for exact clinical observation to chart the way for the successful practical application of what has been learned in this most important development in medical science."

Authorities whose opinion was sought in the survey included:

DR. N. SPROAT HEANEY, chairman, department of gynecology and obstetrics, Rush Medical School, chief gynecologist and obstetrician of the Presbyterian Hospital.

DR. FRED L. ADAIR, chairman, department of obstetrics and gynecology, University of Chicago, and chief of the gynecological service of the Chicago Lying-In Hospital.

DR. F. H. FALLS, head of the department of obstetrics and gynecology, University of Illinois Medical School and University of Illinois Research Hospital.

DR. HERBERT E. SCHMITZ, associate professor of gynecology, Loyola University Medical School, where his father, Dr. Henry Schmitz, now in Europe, head the gynecological department.

DR. IRVING F. STEIN, president, Chicago Gynecological Society.

DR. MARK. T. GOLDSTINE, chief of the medical and surgical staffs, Wesley Memorial Hospital, former president, Chicago Gynecological Society.

DR. ANDREW C. IVY, head of the department of physiology, Northwestern University.

Reprint from "Time"

RHYTHM BIRTH CONTROL

The Pope frowns on all forms of contraception because they prevent the birth of children, prime purpose of Roman Catholic matrimony. A thoroughgoing realist, the Pope at the same time knows that many loving Catholics who fear to have children defy his pontifical frown. Therefore he decided that it is morally right and proper for Catholic couples to utilize the wife's monthly rhythm of sterility and fertility as a natural method of contraception.

The Pope gave permission to do so in his 1930 Encyclical on Marriage, Casti Connubii. Said he: "Nor are those considered as acting against nature who in their married life use their right in the proper manner, although on account of natural reasons of time or of certain defects, new life cannot be brought forth."

DR. JOSEPH A. TOBIN, director of nursing education, De Paul University and the university's nine affiliated hospitals, and president of the Cosmas and Damian Associates, organization of Catholic physicians.

DR. PAUL E. LAWLER, professor of obstetrics, Loyola University Medical School.

DR. PHILIP M. LAW, neurologist and member of the staffs of the Cook County and University Hospitals.

DR. A. E. LUCKHARDT, member of the staff of the Grant Hospital.

"Two years ago I became convinced of the authenticity of the Ogino-Knaus method," Dr. Heaney is quoted in the foundation's survey. "As a result I began advising its use to patients who rightfully wished to avoid conception. During these two years in every single case where the prescribed method was followed not a single pregnancy has occurred."

Dr. Ivy, who has done research work under Dr. Hartman, who reached conclusions almost identical with those of Knaus through experiment on monkeys, according to the survey, said:

"Biology might be called a science of rhythms whether it has reference to humans or animals. The best available evidence now supports the rhythm of reproductivity in man as well as in other mammals. There is absolutely no question of the existence of an optimum time of the fertility in women and there lies the crux of this whole problem. Nevertheless, just as there are exceptions to every other biologic law, so there must be exceptions to this one."

RHYTHM FOUNDATION

American Sponsors of the Rhythm Calculator . . .

A NATURAL AND SCIENTIFIC METHOD OF BIRTH REGULATION

Invites inquiries from members of the CALIFORNIA MEDICAL ASSOCIATION

Western Divisional Offices:

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Morton R. Gibbons	**San Francisco**	1935
Karl L. Schaupp (Chairman)	**San Francisco**	1935

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John V. Barrow	Los Angeles	1937
William J. Kerr (Chairman)	San Francisco	1938

Committee on Health and Public Instruction

W. R. P. Clark	San Francisco	1936
Benjamin W. Black	Oakland	1937
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J. Marion Read	San Francisco	1936
George D. Lyman (Chairman)	San Francisco	1937
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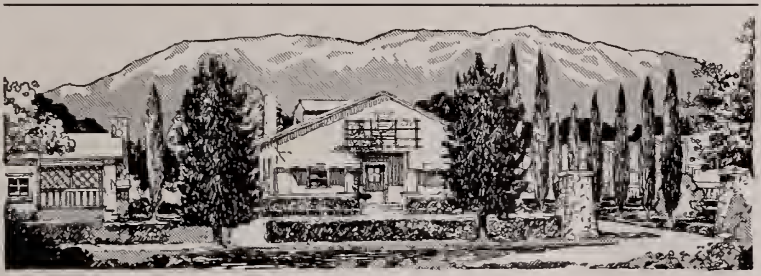

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Bacteremia and Oral Sepsis.—In searching for the source of streptococci concerned in the production of subacute bacterial endocarditis, Okell and Elliott state that attention must inevitably be turned to the oral cavity. The majority of endocarditis streptococci are of the salivary or Streptococcus viridans type. These abound in the mouth and its neighborhood, but are found elsewhere only in small numbers and under exceptional conditions; above all, it is in conditions of oral sepsis, such as pyorrhea of the gums, that this type of streptococcus is found in the greatest numbers. The blood was examined for bacteria in 138 patients undergoing extraction of teeth. Eighty-four of these showed a transient streptococcic bacteremia after extraction, and in cases considered to be of a severe type of oral sepsis (group A) the positive streptococcus cultures reached as high a figure as 75 per cent. In all cases from which streptococci were recovered, the organisms were of the nonhemolytic type. In the majority of cases in which the result was positive, streptococci were recovered from the cultures grown under aerobic and anaerobic conditions of cultivation, and in a few instances the organisms were found in the aerobic or anaerobic cultures. None of the streptococci recovered were obligatory anaerobes. In general, it was found that the occurrence and degree of a bacteremia depended on the severity of the disease of the gums and the amount of damage done at the operation. The bacteremia following extraction is of short duration. The transient bacteremia following operative trauma is analogous with that described by Barrington and Wright in catheter fever, in which Bacillus coli was the usual organism isolated from the blood. In persons with severely septic mouths, nonhemolytic streptococci (mostly of the viridans type) may enter the blood stream in the absence of any obvious trauma. The authors have been unable to ascertain whether the condition of "leak" into the blood stream in the positive cases is continuous, intermittent or merely a fortuitous single occurrence. Nor have they yet determined whether minor traumas, such as brushing the gums or chewing, have any effect on the occurrence of the bacteremia. The efficient mechanism, which exists for clearing the blood stream of organisms of low virulence, no doubt allows a leak of organisms into the circulation to be detectable in blood from an arm vein only when the leak exceeds a certain magnitude or the organisms are abnormally resistant to phagocytic clearing. The leak, which is of little consequence in the normal person, might determine the infection of diseased or malformed valves. The direct observation of such an invasion of blood provides a tentative explanation of how streptococci reach the cardiac valves in cases of subacute bacterial endocarditis.—*London Lancet.*

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Workmen's Compensation Acts: Physician as an Employee or Independent Contractor.—The Goodman Medical Association, composed largely of the employees of the Goodman Lumber Company, was organized for the primary purpose of furnishing medical and hospital services to its members. Dr. Jacob Gomber entered into a written contract with the association to perform such services as a physician and surgeon as were required to be furnished by the Goodman Lumber Company and another company under the Workmen's Compensation Act of Wisconsin, to testify in any case arising out of industrial accidents, to be superintendent of a hospital maintained by the association, and generally to render medical care to members of the Goodman Medical Association. On August 2, 1932, he was requested by the Goodman Lumber Company and the association to testify before the industrial commission. On the way to the hearing, he injured two fingers of his right hand when his automobile door closed on them. Infection set in, necessitating first an amputation of the middle finger and later on the amputation of his arm. He sought compensation under the Workmen's Compensation Act, and from a judgment of the circuit court confirming the order of the commission denying compensation, he appealed to the Supreme Court of Wisconsin. Pending the appeal, he died and his administrator was substituted as plaintiff.

It is obvious, said the Supreme Court, that the examiner, the commission, and the circuit court regarded the contract between the association and Doctor Gomber as requiring the latter to render only professional services. It has been generally held that the relation between a hospital and a physician employed by it is not that of master and servant. Physicians and surgeons employed by hospitals to minister to the sick and the infirm continue to be professional men who practice their profession according to their best judgment and discretion. While so practicing they are in no sense of the work subject to the orders or control of their hospital employers or bound in treating the sick to follow their directions. In a note in 19 A. L. R. 1183, it is stated:

> The decisions of which the rationale is that physicians and surgeons are not the servants of their employers are referable to the conception that they are "professional men" who are engaged on the understanding that they are to "exercise their profession to the best of their abilities according to their own discretion; but in exercising it they are in no way under his (their) orders or bound to obey his (their) directions." This theory as to the nature of their position necessarily implies that they are independent contractors—a designation which has sometimes been specifically applied to them.

In this case, however, Doctor Gomber was employed to perform many duties that were not professional in character. He served as superintendent of the hospital. While so acting, his status was that of a servant. *Schloendorff* v. *Society of New York Hospital,* 211 N. Y. 125, 105 N. E. 92, 52 L. R. A. (N. S.) 505, Ann. Cas. 1915C, 581. He also managed the hospital pharmacy, and in that capacity bought and sold drugs for the association. He was required to attend hearings of the industrial commission in which employees of either the Goodman Lumber Company or another company were interested. His attendance on such hearings was clearly under the control of the association. The association had the authority to direct him where and when to go. The Workmen's Compensation Act of Wisconsin defines employee to include: ". . . (4) Every person in the service of another under any contract of hire, express or implied. . . ." This language, in the opinion of the court, was sufficiently broad to bring the facts of the present case within it and to impel the conclusion that Doctor Gomber's status at the time he was injured was that of an employee. The judgment of the circuit court was reversed, with directions to reverse the order of the industrial commission and to return the record to the commission for further proceedings. (*Gomber* v. *Industrial Commission* (Wis.), 261 N. W. 409.)—*Medico-Legal News Item.*

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BOOK REVIEWS

List of Books Received

BOOKS RECEIVED

Glandular Physiology and Therapy. A Symposium prepared under the Auspices of the Council on Pharmacy and Chemistry of the American Medical Association. Cloth. Pp. 528. Price, $2.50. Chicago: American Medical Association, 1935.

Manson's Tropical Diseases. A Manual of the Diseases of Warm Climates. Edited by Philip H. Manson-Bahr, D. S. O., M. A., M. D., D. T. M., and H. Cantab., F. R. C. P. Lond., Physician to the Hospital for Tropical Diseases, London, the Albert Dock Hospital and the Tilbury Hospital; Consulting Physician to the Colonial Office and Crown Agents for the Colonies; Deputy Director, Division of Clinical Medicine, London School of Hygiene and Tropical Medicine. Tenth Edition, Revised. Cloth. Pp. 1003, with 22 color plates, 15 halftone plates, 381 figures in the text, 6 maps, and 38 charts. Price, $11. Baltimore: William Wood and Company, 1936.

Annual Report of the Surgeon General of the Public Health Service of the United States for the Fiscal Year 1935. Cloth. Pp. 158. Price, 75c. Washington: Government Printing Office, 1935.

A Manual of the Common Contagious Diseases. By Philip Moen Stimson, A. B., M. D., Assistant Professor of Clinical Pediatrics, Cornell University Medical College; Visiting Physician, Willard Parker Hospital; Chief of Staff, the Floating Hospital of St. John's Guild; Associate

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Attending Pediatrician, the New York Hospital School Physician, the Horace Mann Schools, 1919-1923. Second Edition, Thoroughly Revised. Leather. Pp. 437, illustrated with 53 engravings and 3 plates. Price, $4. Philadelphia: Lea & Febiger, 1936.

The Pharmacopoeia of the United States of America. Eleventh Decennial Revision (U. S. P. XI). By Authority of the United States Pharmacopoeial Convention held at Washington, D. C., May 13 and 14, 1930. Prepared by the Committee of Revision and Published by the Board of Trustees. Official from June 1, 1936. Cloth. Pp. 676. Easton: Mack Printing Company, 1936.

You Must Eat Meat. Fancies, Foibles and Facts About Meat. By Max Ernest Jutte, M. D., Formerly Lecturer on Stomach and Intestinal Diseases, New York Polyclinic Medical School, Member of the American Medical Association, New York State Medical Society, etc. Cloth. Pp. 164. Price, $2. New York: G. P. Putnam's Sons, 1936.

BOOK REVIEWS

Diseases of the Thyroid Gland. By Arthur E. Hertzler. Third edition. Pp. 348. Illustrated. St. Louis: The C. V. Mosby Company, 1935. Price, $7.50.

This book is the expression of one man's experience and impressions gathered over many years of goiter surgery. As a modern scientific book it is remarkable in that there is not a single reference to the voluminous literature on the subject of goiter. The value of the book, however, is not in the slightest decreased by this absence of bibliography as it is a well organized record of the observations and experience of a keen student and observer of his subject. Doctor Hertzler has developed a simple clinical classification of thyroid diseases and has put it to the test of time. He has little regard for

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theory and contention and the book is entirely free of extraneous matter. He considers the disease of goiter as a continuous process, the normal termination of which is a cardiac death. The book is the story of how this normal termination can and should be circumvented.

The author has made many careful observations and records over a long period of years. He leads the reader along these same paths, pointing out the sign posts, warning of the dangers, prying into the dark corners and finally leaving him to draw conclusions which are almost certain to be the same as the author would have drawn.

For this reason I feel that this book should prove a reliable guide for the student who will be able to absorb from it the valuable observations of a keen observer gained over a period of many painstaking years. R. W.

A Manual of Southern California Botany. By Philip A. Munz, Professor of Botany, Pomona and Claremont Colleges, Claremont, California. Cloth. Pp. 642. J. W. Stacey, Inc., San Francisco.

An excellent discussion of the botanical classification and distribution of California plants. If you want to know your flowers, this text will be found most dependable and helpful.

The Pharmacopoeia of the United States of America. Eleventh Revision. Official from June 1, 1936. Mack Printing Company.

The trustees present the Eleventh Revision of the U. S. Pharmacopoeia. Would that physicians were more conversant with this text in order that they would discontinue proprietary prescriptions and depend upon U. S. P. remedies. This official text should be on every physician's desk for reference and study.

Annual Report of the Surgeon General of the United States Health Service. Government Printing Office. Cloth. Price, 75 cents.

The title imparts the contents.

(Continued on Next Page

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BOOK REVIEWS

(Continued from Preceding Page)

You Must Eat Meat. By Max E. Jutte. Pp. 164. New York: G. P. Putnam's Sons, 1936. Price, $2.

A rather primitive discussion to justify and increase the consumption of meat. There appears no real reason to justify its publication. The public can well do without it.

A Manual of the Common Contagious Diseases. By Philip Moen Stimson. Second edition. Pp. 437. Philadelphia: Lea & Febiger, 1936. Price, $4.

This manual offers sound, comprehensive, definite, concise, and helpful instruction. It is well arranged. As a clinical guide it should be useful to internes, industrial physicians and nurses, because it presents the salient features of contagious diseases.

Manson's Tropical Diseases. By Philip H. Manson-Bahr, F. R. C. P., London. Tenth edition. Illustrated. Cloth. Pp. 1003. Baltimore: William Wood & Company, 1936. Price, $11.

This is a manual on diseases of warm climates, giving adequate information. Six years have elapsed since the last edition. This tenth edition presents the progress made by science, thereby enhancing the value of this text. Adequately illustrated, concise in description, complete in covering tropical diseases. It is bound to maintain its place as an authoritative text.

Glandular Physiology and Therapy. A Symposium prepared under the auspices of the Council on Pharmacy and Chemistry of the American Medical Association. Pp. 528. Flexible leather. American Medical Association, publishers. Price, $2.50.

A compilation of a series of articles written by recognized authorities, published in the *Journal of the American Medical Association.* As indicated, they constitute a symposium on this important subject. It is appraised as the authoritative text and will guide the doctor so as to enable him to escape the wiles of the manufacturer's detail man as well as instructing him as to the merits of glandular therapy.

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TWENTY-FIVE YEARS AGO

(Continued from Text Page 232)

From an article on "Acute Cholecystitis" by William Watt Kerr, M. D., San Francisco.

In response to your request for some remarks about acute cholecystitis, I shall not attempt a description of the disease, but simply discuss some of the topics that come into the physician's mind when he is at the bedside with his patient.

From an article on "The Relief of Glaucoma by Subconjunctival Sodium Citrate Injections" by Hayward G. Thomas, M. D., Oakland.

Pathologists and clinicians are agreed that glaucoma represents in essence a state in which the eye holds an increased amount of water. As we had best now regard it, it is in reality an edema, and the increased pressure brought about by this means accounts for all the clinical signs and symptoms observed in the condition. As generally held, the increased amount of fluid contained in the eye in glaucoma is believed to be forced into the eye through such agencies as an increased influx or a diminished efflux of blood and lymph from the eye. The unsatisfactory nature of this idea is expressed in every textbook of ophthalmology. Martin H. Fischer, in his work on edema, has given another interpretation of the phenomena observed. . . .

History.—The first positive knowledge we have of plague among ground squirrels in America was the finding of one of the infected rodents on a ranch near Concord, Contra Costa County, California, in August, 1908. . . .

(Continued on Page 17)

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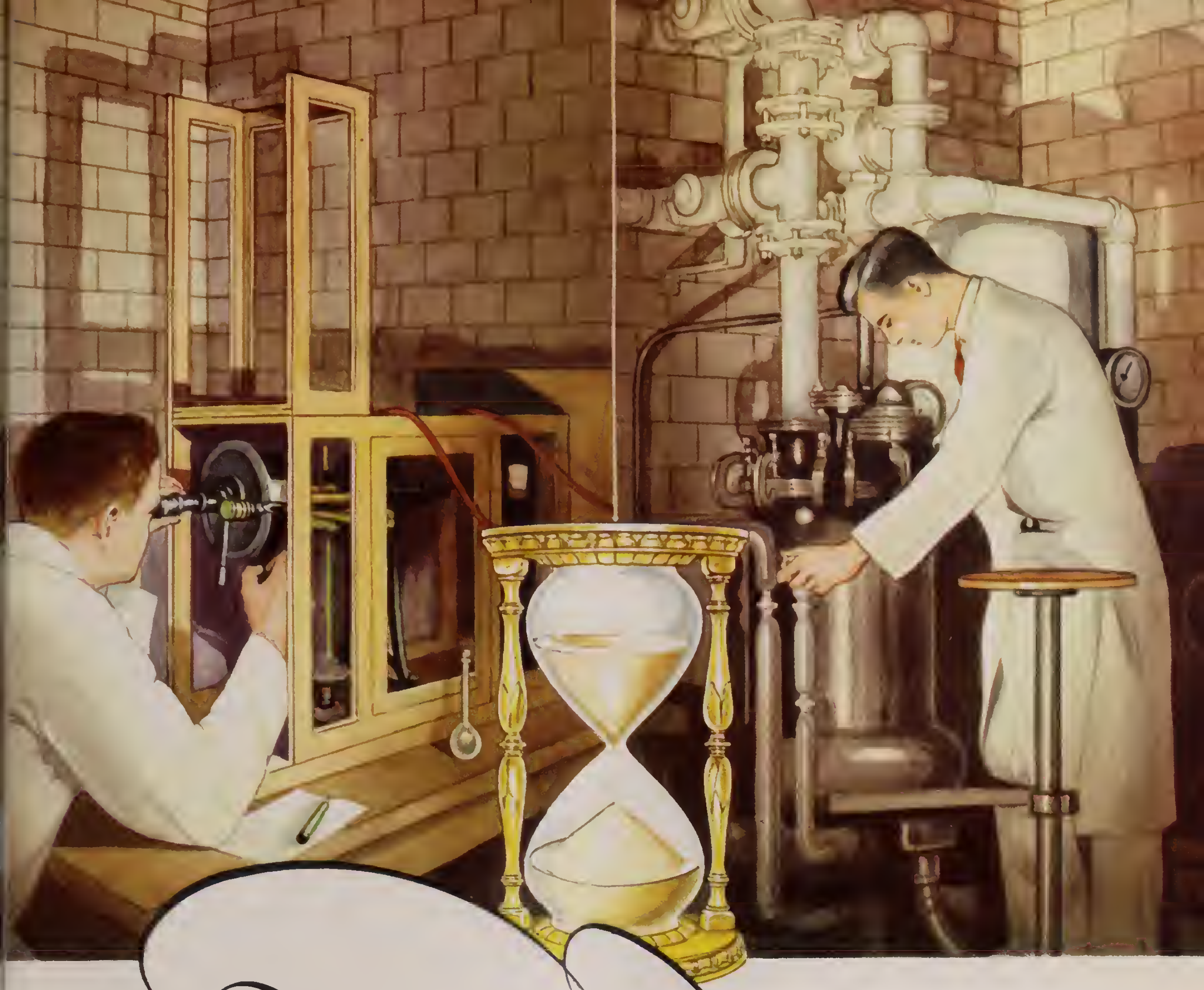

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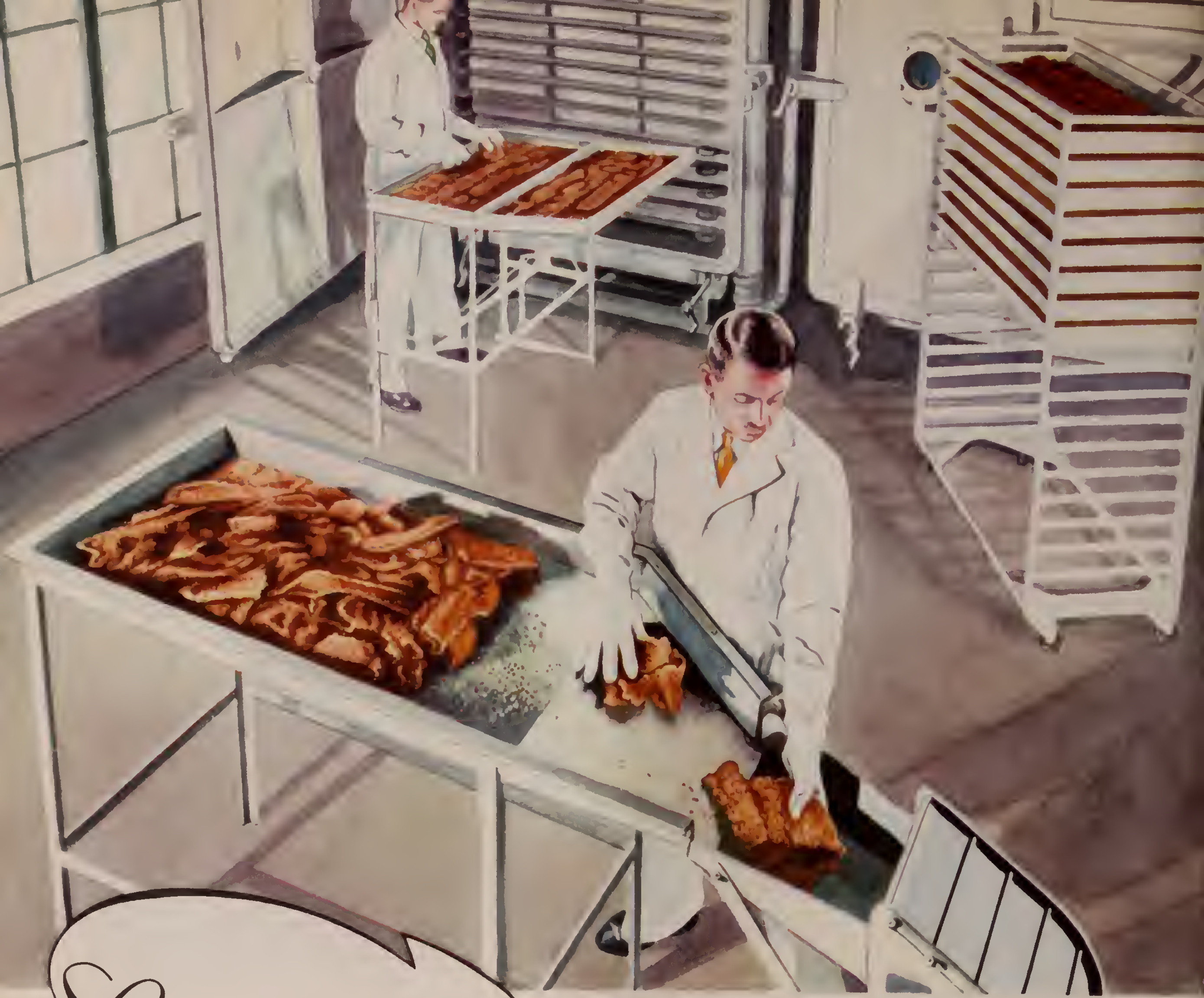

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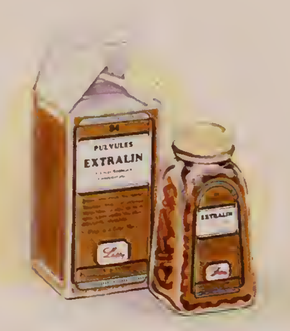

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TWENTY-FIVE YEARS AGO

(Continued from Page 15)

From an article on "Some Features of the Squirrel Plague Problem" by George W. McCoy, Past Assistant Surgeon, United States Public Health and Marine Hospital Service, San Francisco.

Plague among the ground squirrels is one of the most important problems which the sanitarian on the Pacific Coast is called upon to consider. The subject is so large that some of the more important features only will be considered in this paper.

From an article on "The Status of Our Vaccine Work in Cancer" by P. K. Gilman, M. D.

Following experimental work, more particularly that of Van Dungren with whom one of us, Doctor Coca, worked for some months, we determined to apply to the human the methods of "vaccine" treatment in carcinoma that have been tried with various results on lower animals. In an attempt to secure a "vaccine" against a malignant growth, we used various methods of preparation; extracts of tumors, infusions, and differently prepared comminuted malignant tissue. We decided finally that a "vaccine" prepared as follows gave the best results. . .

From an article on "Three Cases of Probable Cancer Transplantation from the Use of the Gilman Vaccine" by W. B. Coffey, M. D., San Francisco.

In a series of some thirty cases of cancer treated by operation for as complete a removal of the tumor as possible and at the same time by the vaccine method of Gilman, there were three cases that presented an unusual result, inasmuch as tumors developed at the site of the injection. The history of the cases is as follows: . . .

Book Reviews:

Three Contributions to the Sexual Theory. Sigmund Freud, LL.D., Vienna, Journal of Nervous and Mental Diseases, Monograph Series, No. 9, Ninety-One Pages.

The brief monograph, as the title signifies, deals with the sexual problem. It may be characterized, in fact, an outline sketch of a new system of clinical psychology. Whether or no, therefore, one chooses to accept the author's doctrine, it is extremely interesting to follow the thread of his argument, if only to ascertain in what essential points he diverges from current beliefs. . . .

Tulare County Organized.—About twenty of the physicians of Tulare County, responding to an invitation sent out by the secretary of the State Society and a personal letter from Dr. Austin Miller of Porterville, met at the Palace Hotel, Visalia, on the night of January 21 and organized the Tulare County Medical Society. . . .

To me it seems as if when God conceived the world, that was poetry; He formed it, and that was sculpture; He varied and colored it, and that was painting; and then, crowning all, He peopled it with living beings, and that was the grand, divine, eternal drama.
—Charlotte Cushman.

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BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 232)

negligent while treating his wife for ailments that resulted in her death last September." (San Francisco *Examiner*, February 11, 1936.)

"Dr. St. Louis Estes, health lecturer, was granted leniency yesterday by Federal Judge William P. James, who postponed sentencing of Doctor Estes for one year on his plea of guilty to mail-fraud charges. Doctor Estes was ordered to refrain from engaging in any promotional venture and to report to the probation officer every sixty days for the twelve months' period. . . ." (Los Angeles *Illustrated Daily News*, January 21, 1936.)

"With a young Alameda housewife in a serious condition as the result of an illegal operation, Oakland police today held Mrs. Mae Brazil, thirty-five, for investigation. Mrs. Ruth Johnstone, twenty-six, was taken to Alameda Sanitarium after her husband, Vern, had called in Dr. J. F. Brady to attend her. Doctor Brady, who charged the illegal operation was performed at Mrs. Brazil's last Saturday, reported the case to the police. (San Francisco *News*, January 29, 1936.)

"Mrs. Virginia Parsons, forty, of 317½ South Stanislaus Street, was arrested today in connection with the death of Mrs. Margaret Alvers, twenty-seven, who died in the County Hospital, Martinez, Monday, from complications following an alleged illegal operation. Mrs. Parsons will be charged either with performing an illegal operation or with manslaughter or both, District Attorney F. C. Clowdsley said. . . ." (Stockton *Record*, January 17, 1936.)

(Continued on Page 20)

TEN MILKS for INFANT FEEDING

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1	Whole Milk	Normal Feeding
2	Skimmed Milk	Infection Vomiting Diarrhea
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4	Soft Curd Milk	Intolerance Indigestion
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6	Dried Milk	Intolerance Allergy Travelling
7	Acid Milk	Marasmus Diarrhea Celiac Disease
8	Protein Milk	Diarrhea Celiac Disease
9	Butter-Flour Mixture	Marasmus
10	Goat's Milk	Allergy

ARTIFICIAL feeding consists of cow's milk modified to the degree of adequacy of breast milk. The types of formulæ devised appear different—but successful mixtures contain approximately the same distribution in protein, carbohydrate and fat. Two-thirds of the total calories are supplied in milk and one-third in added carbohydrate. The formulæ contain 10-20% of the calories in protein, 20-30% in fat and 50-70% in carbohydrate.

Most infants tolerate whole milk. But those with irritable gastro-intestinal tracts, limited digestive capacities or allergic sensitivities, require milk adapted to their low tolerance. As a result, milk has been altered chemically in various ways to make it especially suitable for each type of infant feeding problem. The adjacent column reveals indications for various milks.

But the ten milks available for infant feeding can be safely modified with Karo. It is adapted to every type of formula devised. Karo consists of dextrins, maltose and dextrose (with a small percentage of sucrose added for flavor) practically free from protein, starch and minerals. Karo is a non-allergic carbohydrate, not readily fermentable, well tolerated, readily digested, effectively utilized and economical for both the baby and the budget.

Corn Products Consulting Service for Physicians is available for further clinical information regarding Karo. Please Address: Corn Products Sales Company, Dept. SJ-3, 17 Battery Place, New York City.

REFERENCES:

Kugelmass, Clinical Nutrition in Infancy and Childhood, (Lippincott).
Marriott, Infant Nutrition, (Mosby).
McLean & Fales, Scientific Feeding in Infancy, (Lea & Febiger).

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THE Camp designing staff—with a combined experience of many years in the surgical support field—is constantly endeavoring to render in Camp garments the objectives of various groups of specialists consulted, as well as professional suggestions relayed by Camp nurses detailing all over the world and by Camp dealers.

From the eastern seaboard three years ago and a little later from the West and Midwest came this suggestion from obstetricians: the desirability of a diagonal pull, in addition to the straight around attachments, in a garment designed to support the abdominal walls without disturbing the relationship of the fetus to the pelvis. To effect this abdominal support, and at the same time to provide proper back support, was a task involving considerable difficulties. However, approximately twelve months later—after numerous conferences, many adjustments and trial by various pregnant patients—a new series of prenatal supports was completed, prenatal supports with a diagonal pull, proved by X-ray to support properly the abdominal walls without constriction at any point.

A comparable situation arose with a number of different internists. The desirability of a garment to fit snugly—without discomfort— over thin, protruding hip bones and yet to hold the abdominal organs as high as possible, was obvious from requests by physicians who had prescribed and found wanting in these respects many visceroptosis garments. To provide such a garment involved the manufacture of a specially made material pliable enough to fit like a hood over the crest of the ilium and sufficiently firm to support the abdominal organs. Only after two years of collaboration and painstaking investigation was there ready for distribution a series of such garments.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 18)

"Dr. J. Douglas Thompson, Oakland chiropractor and 'radio doctor,' will have until March 4 to subpoena the 185 witnesses he says he intends to have at his trial on a charge of selling a medicinal preparation with false advertising. . . . Doctor Thompson is free on $500 bail." (Oakland *Tribune,* January 20, 1936.)

"Previously convicted on fourteen counts of violation of the State Narcotic Act, Dr. Hugo Foss, Spring Street druggist, today faced one year in the city jail and a fine of $2,000, in lieu of which he must serve an additional day for each $2 unpaid. In his trial before Municipal Judge Oda Faulconer, officials of the State Medical Board and narcotic officers recommended that probation be denied, in face of his past record. Doctor Lester Crane (licensed by the Board of Osteopathic Examiners), 1546 North Western Avenue, today was in jail, where he will serve a 120-day term for violation of the State Narcotic Act. Dr. Crane was convicted two months ago of issuing narcotic prescriptions illegally." (Hollywood *Citizen News,* January 17, 1936.)

"E. B. Hartman, San Bernardino chiropractor, yesterday was released on $1,000 bail on charges of violating the State Medical Practice Act. Hartman recently was convicted on three counts of violation of the Act and the conviction sustained by the Superior and Appellate Courts. He paid a $180 fine. . . ." (San Bernardino *Sun,* January 10, 1936.)

"Dr. M. M. Kay, sixty-three, widely known Shafter physician, today was at liberty on his own recognizance following his arrest late yesterday on charges of violating

(Continued on Page 22)

For restlessness and irritability

Sollmann (A Manual of Pharmacology, 4th Ed. Saunders, p. 774), discussing the therapeutic uses of dialkyl barbiturates, says they have "a wide variety of applications: To secure sleep, to dull worry and apprehension and to calm nervousness and obtain tranquillity and rest in conditions ranging from 'overwrought nerves' through drug addictions, hyperthyroidism, mania, chorea, and epilepsy; . . . they allay the apprehension and greatly reduce the risk of operation."

Ipral Sodium (sodium ethylisopropylbarbiturate Squibb) is a dialkyl barbiturate which is rapidly and readily absorbed. It produces a sleep closely resembling the normal and usually free from deleterious after-effects. The therapeutic dose of Ipral Sodium is small and since excretion (by the kidneys) is prompt, undesirable cumulative effects may be avoided by proper regulation of the dosage.

Ipral Sodium is supplied in ¾ gr. tablets as a sedative, 2 gr. tablets for use as a sedative and hypnotic, and in 4 gr. tablets for pre-anesthetic medication.

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An approved clinical pathologist should be a licensed graduate of medicine. He shall have specialized in clinical pathology, bacteriology, pathology, chemistry, and other allied subjects for at least three years, and he should be reasonably familiar with the manifestations of disease in the body. The director of a clinical laboratory shall be on full time or have definite hours of attendance, devoting the major part of his time to this specialty. A clinical laboratory is an institution organized for the practical application of the fundamental sciences by the use of specialized apparatus, equipment and methods, for the purpose of ascertaining the presence, nature, source, and progress of disease in the human body.

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These laboratories use standard methods and are fully equipped to make all clinical examinations of recognized value in: Tissue Pathology, Bacteriology, Hematology, Serology, Bio-Chemistry, Kolmer Wassermanns, Kahn test, Medico-legal, Basal metabolism, Blood chemistry, Hormone Test for Pregnancy, Parasitology, Cardiology, Autogenous vaccines, etc.

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Hollister-Stier Arthritis Vaccine is put up in three dilutions, namely: One million, ten million, and one hundred million organisms per cubic centimeter. These dilutions are designated as dilutions A, B and C. A treatment consists of a 5 c.c. ampoule of each of the above dilutions. Additional ampoules of the C suspension may be obtained separately.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 20)

the State Narcotic Act. In jail were four alleged narcotic addicts—Louise Price, 38; Eddy Brown, 39; Ralph Wilson, 38; and Jean Wilson, 26—who assertedly obtained morphin from Doctor Kay. Authorities said the arrests followed months of investigation into the source of narcotics which have been finding their way to 'hopheads' in Bakersfield and throughout the county. The arrests were made by H. W. Perry, State Narcotic Inspector; Bob Knight, Narcotic Inspector of the Bakersfield Police Department; and Bill Lyons of the Kern County sheriff's office. Inspector Perry said that the Shafter physician admitted he had failed to keep a record of his purchases and sales of narcotics. Louise Price and Eddy Brown, who were arrested at San Luis Obispo after they had allegedly resold morphin obtained from Doctor Kay, pleaded guilty in the Bakersfield police court to a charge of obtaining narcotic prescriptions by giving fictitious names and addresses and were sentenced to the county jail by Judge Laird. . . . Officers expressed the opinion that the 'round up' would result in lessening of the flood of narcotics in Kern County. They reported they had been tracing an inordinately high rate of morphin sales to Shafter since last September. . . ." (Bakersfield *Californian,* January 24, 1936.) Dr. M. M. Kay of Shafter today pleaded guilty to one of five counts of violation of the State Narcotic Law, on which he was arrested last month and was sentenced by W. G. Ulery, Wasco Justice of the Peace, to thirty days in the county jail, the sentence to be suspended for two years. (Bakersfield *Californian,* February 7, 1936.)

"Still denying charges that she posed for a photograph with an elderly chiropractor, whom her husband assertedly forced to disrobe at the point of a gun, Mrs. Irene Taylor, young housewife, is to appear before Superior

(Continued on Page 24)

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Indications—As a hypnotic, Dial, for relief of insomnia; suggested dose 1 to 3 tablets. As a sedative, 1/4 to 1/2 tablet. Each Dial Tablet contains 1½ grs., approximately 0.1 Gm.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 22)

Judge Charles W. Fricke today seeking a new trial on an attempted extortion accusation. Mrs. Taylor, her husband, Walter Taylor, and Jerry Bellevue, a friend, who are to appear with her, were convicted recently of attempting to extort $1,400 from Dr. H. N. Tatem (licensed chiropractor). The doctor declared they demanded the money from him after he was photographed with the young woman in her home at 444 South Burlington Street on October 28. Each of the trio faces a possible prison term if a new trial is denied." (Los Angeles *Examiner,* January 17, 1936.) "Walter Taylor, his wife Irene, and Jerry Bellevue, convicted of extortion, were sentenced to prison terms yesterday after Superior Judge Charles W. Fricke rejected their pleas for mercy. . . . Each defendant was given six months to five-year terms." (Los Angeles *Illustrated Daily News,* February 5, 1936.)

"An Associated Press Dispatch from Phoenix, Arizona, today stated that Federal Judge Albert M. Sames had ordered Dr. Charles O. Long of Brawley to appear before the United States District Court there on February 20 for trial on a narcotic charge. He is charged with transporting a quantity of drugs from California to Phoenix. . . ." (Brawley *News,* January 28, 1936.) (Previous entry, June, 1935.)

"Eugene H. Donegan, forty, who identified himself as a chiropractor and who presided Wednesday night at a free public lecture here, featuring a 'Gravitonic Life Ray,' was lodged in the city jail last night. . . . Donegan was charged with violation of the State Chiropractic Act, which forbids chiropractors from representing themselves as otherwise than that type of practitioner." (Santa Barbara *Press,* January 28, 1936.)

(Continued on Page 26)

The Story of MEAD'S OLEUM PERCOMORPHUM

A NEW, ECONOMICAL, POTENT SOURCE OF NATURAL VITAMINS A AND D

Oleum Percomorphum, or Percomorph Liver Oil, is the achievement of an intensive, 10-year investigation conducted in the research laboratories of Mead Johnson & Company to find a natural oil more potent in vitamins A and D than cod liver oil and less expensive to the patient.

The U. S. Pharmacopoeia (IX, 1916, and X, 1925) recognized cod liver oil as the oil from the livers of fishes of the family *Gadidae*. There being some 50 species in this family, in addition to the type species, *Gadus Morrhua*, our first studies were directed at the examination of the more important species classed as cod. It occurred to us that somewhere in nature there might exist a species, or a family, or an order of fish, the liver oil of which would make possible a mixture comparable with Oleum Morrhuae but higher in vitamin potency.

The study was then directed to other species. By 1927 we had quantitatively compared the antiricketic value of oils from 15 species of fish and 11 other oils and fats. This was the most extensive survey of vitamin D sources reported up to that time. Outstanding in this list was puffer fish liver oil with a vitamin potency 15 times that of cod liver oil. Puffer fish were not available in commercial amounts, but the fact that one species of fish yielded so high a vitamin store provided great stimulus to investigators.

We discovered that the potency of fish liver oils increases with the leanness of the livers. With this revelation, we began a survey of all available commercial fish, as well as of rarer species. Collectors were sent to distant continents and to the islands of the Pacific and Atlantic oceans. From ports which never before knew cold storage we arranged to obtain refrigerated livers for our experiments. This ichthyological survey was interrupted (1928) at the time we introduced activated ergosterol.

In 1929 the Norwegian investigator, Schmidt-Nielsen, reported halibut liver oil to be superior to cod in vitamin A. Upon investigating, we felt then, as we do now, that while halibut liver oil marked a distinct advance it left much to be desired since it was perforce an expensive source of vitamin D. Hence it came to be used chiefly to supply vitamin A as a vehicle for viosterol.

Continuing the search for fish liver oils, by 1934 our laboratory staff had made thousands of bioassays of oils from more than 100 species to determine their vitamin characteristics. The results, reported in scientific journals in January and April 1935, were the culmination of a search literally of the seven seas.

With cumulative data on more than 100 species, it became evident that the fish belonging to the order known as *Percomorphi* differ from others in possessing, almost without exception, phenomenal concentrations of vitamins A and D. Thus we find liver oils which contain 50, 100, 500, and even 1,000 times as much vitamin A or vitamin D as average cod liver oil!

Percomorph liver oils are seldom equally rich in both vitamins. By skilful blending of the A-rich oils with the D-rich oils, a mixture is obtained which is about 200 times richer than cod liver oil in both vitamins A and D. As this concentration is so great that an ordinary dose of the oil could not be conveniently measured, we dilute the percomorph oil with approximately one volume of refined cod liver oil.

The resultant product is Mead's Oleum Percomorphum, 50%, which is 100 times cod liver oil* in both vitamins A and D. By a further dilution we obtain Mead's Cod Liver Oil Fortified With Percomorph Liver Oil, 10 times as potent as cod liver oil* in both vitamins A and D. Their respective potencies are 60,000 vitamin A units, 8,500 vitamin D units; and 6,000 vitamin A units, 850 vitamin D units (U.S.P.) per gram.

Just as Oleum Morrhuae is a mixture of the liver oils of various cod species (cf. U.S.P. XI, 1935, p. 261) so Mead's Oleum Percomorphum is a mixture of the liver oils of various percomorph species.** The significant difference is that the improved product is 100 times as potent* in both vitamins A and D.

Mead's Oleum Percomorphum, 50%, is available in 10-drop capsules, 25 in a box; and in 10 cc. and 50 cc. bottles. Mead's Cod Liver Oil Fortified With Percomorph Liver Oil is available in 3 oz. and 16 oz. bottles.

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*U.S.P. XI Minimum Standard.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 24)

"Dr. William J. Cremin may own the house at 336 North Oakhurst Drive, where he was arrested Sunday for drunkenness and disturbing the peace, but the house is in the name of Mrs. Alta M. Archer, the occupant. Consequently, in suspending a thirty-day jail term, Judge Arthur L. Erb suggested that Doctor Cremin take civil action if his claim is true. At any rate he must not go to the house again, except in the company of his lawyer or other person, and he must not be arrested there again for intoxication; otherwise the suspended part of the sentence becomes effective. Doctor Cremin, who has been in court twice during thirty days on intoxication charges, paid a fine of $20 Monday." (Beverly Hill *Citizen*, January 31, 1936.) The name of Doctor Cremin is not found in the records of the Board of Medical Examiners.

"Dr. Samuel A. Twain, thirty-five, operator of the Twain Clinic at 1799 University Avenue, Berkeley, yesterday was held to answer in Superior Court on a charge of illegal possession of narcotics by Judge Oliver Youngs. . . . Yesterday Mrs. Lucinda Revello, a druggist of 2451 Sacramento Street, testified that on September 24, 1935, she filled a prescription for morphin sulphate made out to Edwin B. Clegg, 1492 El Dorado Avenue, and signed by Doctor Twain. Deputy District Attorney Arthur Sherry then introduced a death certificate for Clegg, dated August 16, 1935, also signed by Doctor Twain. He contended that it was evident that a prescription had been filled for a dead man. . . ." (San Francisco *Examiner* (East Bay section), February 7, 1936.)

Dr. L. J. Otis, fifty-three, Norwalk physician, was arrested yesterday by State narcotic officers for asserted violation of the State Poison Act. According to Jack Harrigan, who arrested Doctor Otis, the doctor was conducting a clinic and giving prescriptions to a list of fifteen known narcotic addicts. Harrigan said Otis was selling prescriptions for narcotics for $3 at the rate of two a week to each of the fifteen customers." (Los Angeles *News*, February 1, 1936.)

Reports relate that Earl Musgrave, licensed chiropractor, on December 17 pleaded guilty in the Municipal Court of Los Angeles to a charge of violation of Section 15 of the Chiropractic Act and was sentenced to serve 180 days in the city jail, suspended two years.

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Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245★
Laryngoscope 1935 XLV, 149-154★
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Differential Diagnosis of Enlargement of Cervical Lymph Nodes.—Farquharson states that the diagnosis of enlargement of cervical lymph nodes is usually made without difficulty on the history and the clinical and hematologic examination alone. Of the swellings affecting only cervical lymph nodes, difficulty is sometimes found in differentiating certain cases of tuberculous adenitis from lymphosarcoma and early Hodgkin's disease. A biopsy is often helpful in these circumstances, but the histologic picture is not always decisive and then the diagnosis may be determined only by the subsequent course of the disease. In patients with generalized involvement of the lymph nodes, one must be careful not to confuse infectious mononucleosis, which is never serious, with acute leukemia, which is always fatal. The differentiation is clearly made by clinical examination and study of the blood picture. The importance of history and clinical examination with a consideration of the blood picture is stressed. The information obtained by histologic examination of the excised gland is often useful but sometimes indeterminate and occasionally misleading. It should be considered together with all the clinical data in the final summing up of difficult cases.—*Annals of Otology, Rhinology, and Laryngology.*

The Discovery of Syphilis.—A short time ago, Haberling, professor of the history of medicine in Düsseldorf, discussed the question of the discovery of syphilis. In the last decade of the fifteenth century, which is replete with significant historical events as is scarcely another decade in the world's history, syphilis as a distinct disease entity first attracted attention. Astrologic interpretations having called attention to a sexual plague that would spring up in this decade, all Germany, through the blasphemy edict that was promulgated at Worms, August 7, 1495, became acquainted with the fact that a previously unknown disease called "die bösen Blattern," or virulent smallpox, had been sent down to earth as a punishment from heaven. In reality, as Haberling demonstrated, the disease was not new at that time, but had been known for many years among the so-called Wundärzte, by whom it was treated with mercury. Haberling also pointed out that, in spite of the comprehensive research of Sudhoff, the fable of the American origin of syphilis still bobs up even in studies apparently undertaken seriously. In Haberling's opinion, this fable is connected with the then growing trade in guaiacum wood, from which huge profits were realized. To strengthen the public faith in the efficacy of this wood, the absolutely groundless tales of the transmission of syphilis by the natives of Haiti to the sailors of Columbus were invented, a full generation after the discovery of America. Likewise the account of a devastating epidemic of syphilis in the vicinity of Naples and in German regions was a pure fabrication. Haberling pointed out also that, according to the researches of Sticker, along with the

(Continued on Next Page)

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SULPHATE	16.1 parts per million
NITRATE	0 parts per million
PHOSPHATE	.7 parts per million
CARBONATE	1551.4 parts per million
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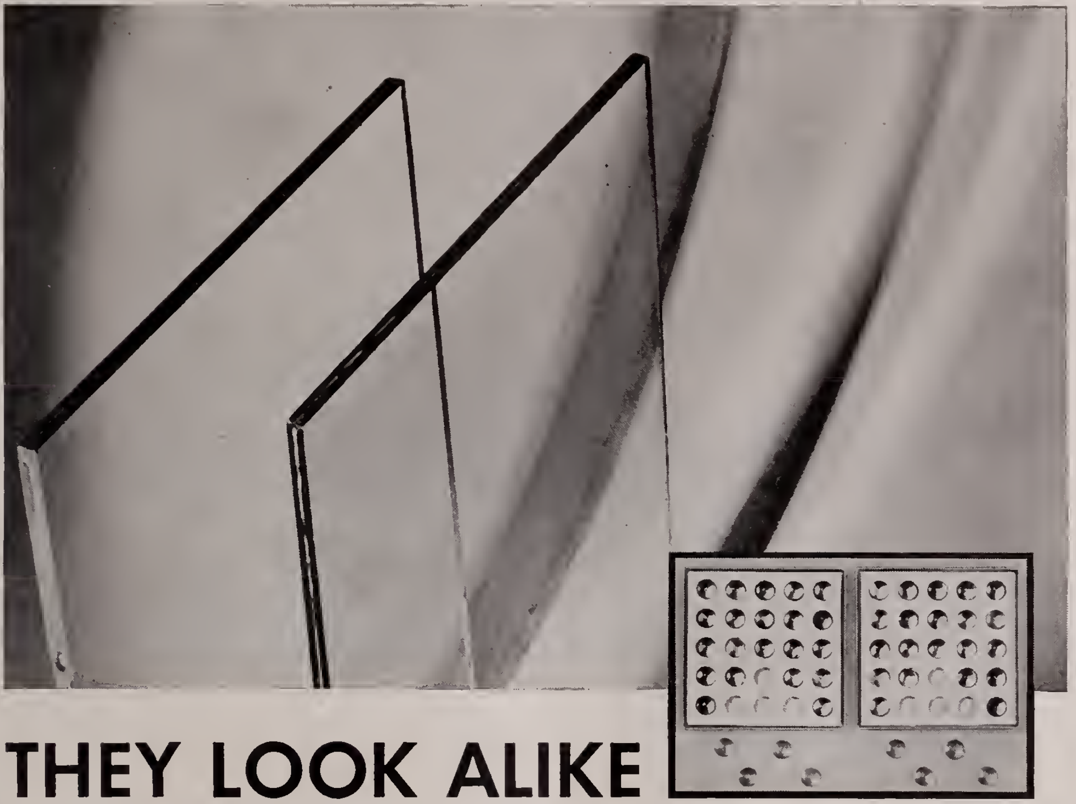
(Continued from Preceding Page)

term "lepra vera," again and again one finds in the writings of the physicians of the Middle Ages the expression "lepra spuria," which, in contradistinction to lepra vera, did not require isolation and was curable. This lepra spuria, to which, in course of time, many other names were assigned, was doubtless syphilis, which, simultaneously with leprosy, was brought in from the Orient by persons returning from the crusades. — *Berlin News Letter.*

Time of Operation in Acute Appendicitis.—Krasnoselskiy studied 1,944 cases of acute appendicitis from the point of view of operative indications at various stages after the onset of the attack. The study of the pathologic alterations in the appendix demonstrated that neither the time elapsed since the onset of the acute attack nor the clinical picture made it possible to estimate the underlying pathologic condition of the appendix and of the adjacent structures. The prognosis cannot be established with any degree of certainty on these data. The author, therefore, believes that operation is indicated as soon as the diagnosis is made, regardless of the time elapsed or of the degree of severity of the clinical symptoms. Conservative treatment is permissible only in cases with well-defined palpable induration, provided the patient is kept under observation in the surgical division. The incidence of acute appendicitis in women was less than in men. It ran a milder course and its mortality was about one-third that occurring in men. The deciding factor in mortality was not the time element and the consequent loss of immunobiologic properties of the organism, but the pathologic alteration in the appendix and the surrounding structures. Comparison of a series of 500 cases up to January, 1933, with a series of 1,444 cases from January 1, 1933, to July 15, 1934, showed that the mortality was lowered from 3.2 per cent to 1.8 per cent. The mortality for the two series was 2.16 per cent: 3 per cent in men and 1.12 in women.—*Vestnik Khirurgii.*



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Address editorial communications to Dr. George H. Kress as per address above; advertising and business communications to Secretary-Treasurer, Dr. Frederick C. Warnshuis, also at above address.

EDITOR . . . . GEORGE H. KRESS

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

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Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS[†]

"I GIVE AND BEQUEATH"

An Excellent Thought.—Under the above title, Association Secretary Warnshuis calls the attention of members of the California Medical Association to the purposes of our organization and its worthiness to receive gifts and bequests from members who would wish to aid in the promotion of the general work or special activities of the Association.[*]

These aims are so deserving that it should be permissible to mention the Association's work to grateful patients of ample means who might wish to contribute to the advancement of scientific medicine.

In reading Secretary Warnshuis' comments on the subject, we remembered that about twenty years ago we drafted and printed some bequest forms in the catalogue of one of the institutions in which we held an administrative position. These were passed upon by the legal counsel of the institution and we print them below for their suggestive value.[‡]

* * *

Advancement of Scientific Medicine and Social Welfare Often Go Hand in Hand.—The advancement of scientific medicine makes not only for the conservation of human health and life, but, indirectly—by stressing the elimination of predisposing causes to disease that are so often associated with faults in social environments—is at all times a potent force in the promotion of the social and physical welfare of citizens. Gifts to the building up of scientific medicine, therefore, can go far to help make this a safer and better world in which to live.

* * *

Legal Forms for Bequests.—These bequest forms, to which reference has been made, are modified to apply to the California Medical Association. Bequests for specific work could be so specified. The three forms follow:

[†] Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column, which follows.

[*] For Secretary Warnshuis' comments, see page 208.

[‡] Editor's Note.—The bequest forms here printed were sent to the legal counsel of the California Medical Association, Hartley F. Peart, Esq., for check and insertion of the corporate name—the Trustees Of The California Medical Association.

FORM OF LEGACY

I give and bequeath unto the Trustees Of The California Medical Association, a California corporation, the sum of $——— to be held by it as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall, from time to time, be invested by said corporation to the best advantage compatible with safety, and the income whereof shall be applied by it to the promotion and furtherance of the purposes and objects for which said corporation was formed, as more fully appears in the Articles of Incorporation of said Trustees Of The California Medical Association.

FORM OF DEVISE OF REAL PROPERTY

I give and devise unto the Trustees Of The California Medical Association, a California corporation, [here describe the property], the same, or the proceeds thereof, to be held by said corporation as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be applied by it to the promotion and furtherance of the purposes and objects for which said corporation was formed, as more fully appears in the Articles of Incorporation of said Trustees Of The California Medical Association. Said Trustees Of the California Medical Association shall have the power to sell said property, and to invest and reinvest the proceeds thereof, from time to time, as may be deemed advisable by the Board of Directors of said corporation for the purpose of producing as large an income as may be compatible with safety.

FORM OF BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto the Trustees Of The California Medical Association, a California corporation, [here describe the property], the same, or the proceeds thereof, to be held by said corporation as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be applied by it to the furtherance of the purposes and objects for which said corporation was formed, as more fully appears in the Articles of Incorporation of said Trustees Of The California Medical Association. Said corporation shall have the power to sell said property, and to invest and reinvest the proceeds thereof, from time to time, as may be deemed advisable by the Board of Directors of said corporation for the purpose of producing as large an income as may be compatible with safety.

GOVERNOR FRANK F. MERRIAM REAPPOINTS PRESIDENT, SECRETARY, AND OTHER MEMBERS OF THE BOARD OF MEDICAL EXAMINERS: THE ASSOCIATION'S THANKS TO HIS EXCELLENCY

Under date of February 20, the newspapers of California carried a Sacramento dispatch which read as follows:

> Sacramento, Feb. 20.—Governor Frank Merriam today announced he had made seventeen appointments to six state boards:
>
> Appointed to the State Board of Medical Examiners were:
>
> Dr. Frederick DeLape, Modesto, reappointed for the term ending January 15, 1939.
>
> Dr. F. W. Didier, Wheatland, to succeed Dr. Percy T. Phillips of Santa Cruz, deceased, for the term ending January 15, 1940.
>
> Dr. Harry V. Brown, Glendale, reappointed for term ending January 15, 1939.
>
> Dr. William R. Molony, Los Angeles, reappointed to term ending January 15, 1940.
>
> Dr. Charles B. Pinkham, San Francisco, reappointed for term ending January 15, 1940.

The above action by Governor Merriam meets with the hearty approval of the organized medical profession of the State of California. Each of the physicians who were reappointed has given years of faithful and efficient service on the Board in carrying out the medical practice law, thus aiding in the conservation of the public health through protection of citizens from incompetent practitioners. Particularly pleasing to the profession is the reappointment of the Board's executive officer, Dr. Charles B. Pinkham.

It may be of interest for members of the Association to learn that much pressure was brought to bear on Sacramento in an effort to displace some of the board members who were reappointed. It is also gratifying to know that the director of the California Department of Professional and Vocational Standards, the Hon. William G. Bonelli, who in his official position must supervise each of the dozen or more examining boards of the State, also gives his wholehearted support on behalf of the maintenance of adequate standards. To His Excellency, Governor Frank F. Merriam and to Director William G. Bonelli, our thanks.

KERN COUNTY HOSPITAL SUIT: APPELLATE COURT ENJOINS SUPERVISORS FROM ADMITTING NON-INDIGENT PATIENTS

Decision of the Kern County Superior Court Upheld by the Higher Appellate Court.—On page 189 appears in full the text of the opinion of the Appellate Court, Fourth District (written by Mr. Justice J. Marks, and concurred in by Mr. Justice P. J. Barnard and Mr. Justice J. Jennings), in which they handed down a permanent injunction, making it illegal for the members of the Board of Supervisors of Kern County, or their agents, to admit as patients in the publicly owned and operated Kern County Hospital, citizens not belonging to the indigent class. This opinion, in its essential features, affirmed the decree of injunction rendered on December 4, 1933, by Judge K. Van Zante of the Superior Court of Kern County, from which appeal was taken by the Kern County Board of Supervisors.

The decree, as printed in this issue, is taken from "California Appellate Decisions" (Vol. 84, No. 3193, February 7, 1936), and should be read by every member of the California Medical Association; because it outlines, for California, those basic principles which legalize free medical and hospital service when paid for from public funds.

The members of the Kern County Medical Association, who several years ago had the courage to throw down the gauge of battle on this issue, are to be congratulated on the happy outcome, as evidenced by the ruling of this higher court.*

Congratulations are also expressed to the members of the legal profession, who, as attorneys for the respondents, and as *amici curiae*, presented arguments and briefs that had much to do with the important decision so happily rendered.

---

* On March 5, Legal Counsel Peart was served with a notice that the Supervisors of Kern County have appealed from the decision of the Appellate Court to the State Supreme Court.

The closing paragraphs of the opinion, as rendered by the Appellate Court, are of sufficient importance to be reprinted in this column, but members should read the entire opinion, in order the better to understand all the questions at issue.* The final judgment and decree follow:

It is therefore ordered, adjudged and decreed that the defendants Perry Brite, Stanley Abel, W. R. Woollomes, J. C. Hart, Charles W. Wimmer, individually, and as members of the Board of Supervisors of Kern County, and Kern County, a legal subdivision of the State of California, and each of them, and every officer, deputy, agent, appointee, subordinate, servant or employee of the above named defendants, or either or any of them, and particularly and especially the officers, deputies, agents, employees, appointees, servants, doctors, superintendents, heads of departments, internes, nurses, and assistants, and all other persons acting under defendants or any of them in any matter relating to the operation, maintenance, administration, or conduct of that certain County Hospital of the County of Kern known as the Kern General Hospital, be, and each of such persons is, and all of them are hereby forever permanently restrained, enjoined and commanded to desist from admitting to and receiving as patients of, caring for, curing, treating, boarding, nursing, furnishing food or supplies or lodging to, or hospitalizing in, said Kern General Hospital, or at or in any out-patient clinic thereof, any person who, after due inquiry and investigation, is not found to be an indigent person as herein defined, or a dependent or partially dependent person in case of emergency, or who is found, after due inquiry and investigation, to be a person who is himself, or has a relative or relatives legally liable for his support, able to pay for and obtain proper and necessary medical or surgical or hospital care or treatment or services for himself elsewhere than in the County Hospital except as hereinafter specified. The following should be admitted: †

(*a*) An indigent sick or dependent poor person.

(*b*) A needy sick and dependent or partially dependent citizen in case of emergency.

(*c*) A psychopath, narcotic addict or habitual inebriate temporarily in custody.

(*d*) A physically defective and physically handicapped person under the age of eighteen years when the parents or guardian of such person are not financially able to secure proper care or treatment and when such person's admission and treatment has been duly authorized in the manner provided by law.

(*e*) A person in the active stages of tuberculosis, in wards established for the treatment of such persons, who is able to pay for such treatment and who, when able to pay, is required to pay for such treatment.

(*f*) A person to be quarantined or isolated in the county hospital with a contagious, communicable or infectious disease.

(*g*) A prisoner confined in any city or county jail who requires medical or surgical treatment necessitating hospitalization where such treatment cannot be furnished or supplied at such jail when the Superior Court of the county shall have ordered the removal of such prisoner to the county hospital and said prisoner elects not to furnish such treatment at his own expense.

(*h*) A county employee injured in the course of his employment by the county when hospitalization is reasonably required to cure and relieve the effects of such injury.‡

(*i*) A person in need of immediate hospitalization on account of accident or sudden sickness or injury or by reason of sickness or injury caused by or arising in a sudden public emergency or calamity or disaster.

Provided,

(*j*) Nothing in this decree shall be construed as restraining defendants from obeying or carrying out or giving effect to any law that may be passed hereinafter relating to the hospitalization of patients in county hospitals which may affect the hospital in Kern County.

COUNTY SOCIETY VISITATION: THIS YEAR'S INTERESTING EXPERIENCE

Visitation Conferences with County Societies.—In almost every recent issue, California and Western Medicine has printed a list of visits made to component county medical societies by President Robert A. Peers of Colfax, Association Secretary Frederick C. Warnshuis and other State Association officers. The reports which have come to us, after some of the visitations, indicate that few lines of work are capable of resulting in so much good, both for the parent state organization and the component county units, as just such contacts and interchange of opinion. Particularly in the smaller and somewhat distant counties, are the beneficent advantages of county society visitation to be noted. On more than one occasion, where the topography of the country and absence of railroads made ease of access to the meeting place difficult, members have come, by auto, distances as great as one to two hundred miles, in order to be present at the conferences. Not only that, but practicing physicians in smaller cities and communities have been sufficiently alert to bring as their guests, to hear the messages which the Association officers presented, local colleagues whose names were not on the roster of the county society, and who, before the meeting ended, signed blanks for society membership. One other result brought to our attention on the very day of this writing was that of several physicians in a county in the southern part of the State, who had been invited as guests to one of the meetings, and who after the meeting signed applications for membership; thus giving to the community from which they came, the honor of having a one hundred per cent membership in the county society.

* * *

Beneficent Results of County Society Visitation.—As a result of this well-planned activity—which may be appropriately termed County Society Visitation—the members of the component county societies in the State have become more Association- and organization-conscious. As another consequence, too, the problems confronting state and county societies are much better appreciated than in previous years, and, with this clearer understanding, there has developed a more active coöperation on the part of many members who formerly were only casually interested in organization work; the result being that an increasing number of members are taking an active interest in bringing every eligible physician in their respective communities into affiliation with organized medicine. Results, such as the above, are certainly worthy of strenuous effort.

* * *

Thanks of the Association to Those Who Have Coöperated in the Visitation Conferences.—The California Medical Association is indebted to President Robert A. Peers, and also to his predecessors, including notably Dr. Clarence G. Toland, president in 1934-1935, for the services they have rendered in giving a real impetus to county society visitation programs. Thanks are due also to state councilors who have joined with President Peers and Association Secretary Warnshuis, and to the county society officers who have aided them to make these visits take on a helpful force; the influence of which will be felt, in good fellowship and professional ways, for years to come.

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* For full opinion, see page 189.

† Editor's Note.—Paragraphs our own.

‡ See comment on page 189.

So successful has been this comparatively recent work that, from now on, county society visitation, carried on along carefully outlined plans, will be considered a definite responsibility of each year's organization program, and one to which the Association's president, councilors and officers may be counted on to give generously of their best efforts. Through such coöperative endeavors, the California Medical Association and its component county medical societies are more certain than ever to realize achievements in scientific and organized medicine, which they have set for themselves. Once again, thanks to all who have had a part in making the visitation conferences of President Peers' administration so successful.

ON THIS AND THAT

Proceedings of the County Secretaries' Conference.*—The minutes of the conference of State Association Officers and County Society Secretaries, held in San Francisco on January 18, are printed in this issue and will be found on page 210.

Members of the California Medical Association who desire to know more about the work of the parent state organization will find these stenographic reports of speeches and discussions of considerable interest; and as they learn of the intricacy of duties and problems, it may be hoped that some of the supposed mystery surrounding the work of state officers will fall away.

* * *

Advantages of Conferences.—Among the great advantages resulting from the secretarial conference, and of the county society visitations, are these: the workers in the State Association and the county societies are thus provided with an opportunity to meet one another face to face, and to explain their respective points of view or doubts; and through discussion of the best methods of procedure, to unite on plans of action, in which all effort is directed toward one harmonious end. The California Medical Association in recent years has expended many thousands of dollars which might still be in the Association's treasury, had it been possible, through preliminary conferences, to come to a common understanding on some of the matters which seemed to take on such paramount importance that immediate action apparently was necessary.

This fact is here mentioned not to criticize but simply to emphasize how valuable conferences may become to an organization, if through a free and leisurely exchange of opinion and discussion, hasty and expensive procedures may be reduced to a minimum.

The state and county officers, who attended the January 18 secretarial conference, gladly put in an entire day educating and rededicating themselves to the welfare of the California Medical Association and its component county societies. Perhaps you, kind reader, may also care to know on what topics the time was thus spent by those officer-colleagues, who gladly left their professional work, in the hope of learning how better to aid one another and you, in battling to advantage for the aims which scientific and organized medicine have mapped out for themselves, and to which the members of the California Medical Association are pledged.

* * *

Coronado Annual Session, Monday, May 25, to Thursday, May 28: List of San Diego Hotels; Prompt Reservations Necessary.—The opening paragraph of California and Western Medicine for February called the attention of readers to this year's annual session headquarters hotel—the Hotel del Coronado—and the fact that only twenty-five rooms had not been applied for. The hotel now reports a full reservation of all rooms.

However, on page 209, Association Secretary Warnshuis gives the names of other hotels in San Diego, and announces, also, that a ten-minute ferry service will be in operation from San Diego to Coronado Island. Members who wish to be sure of accommodations should promptly write to one of these San Diego hotels. Every effort is being made to anticipate the desires of visiting members; but those who hope to get superior hotel accommodations, without making reservations in ample time, are apt to be disappointed.

In next month's issue will appear the program of this year's annual session, and the urge to attend the meetings will then again be in evidence. Associated, as are the excellent scientific program and the social features, with the exhibits at the San Diego Exposition, all signs point to a very large attendance. To play safe, make your reservations now.

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Attorney-General's Opinion on Division of Pathologic and Radiologic Services into Professional and Technical Fields.—In the department for Letters, on page 243, will be found the opinion of Attorney-General U. S. Webb, through Deputy Lionel Browne, in reply to a communication from Director Walter M. Dickie of the California State Board of Health, relative to the interpretation of certain sections of the 1935 nonprofit hospital law known originally as Assembly Bill 246, and now on the code books as Chapter

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* For previous references, see February issue, pages 74 and 117.

386, Statutes of 1935. Under that law certain responsibilities were placed upon the California State Board of Health, and Director Dickie's communication was a request to the Attorney-General for clarification.

The legal principles involved in the interpretation of laws are well exemplified in this statute. The State Board of Health must govern itself by the opinions of the State's Attorney-General, unless such opinions are overruled by the proper courts. In the present instance, Deputy Browne points out the difficulties involved in having the office of the Attorney-General render an opinion on an abstract proposition, when, as a matter of fact, some of the legal points must be settled by the courts on separate and specific cases, and then only "upon a consideration of all the facts adduced and of the law applicable thereto." The letter of Deputy Browne, printed on page 243, should be read, not only by members of the profession associated with the specialties mentioned, but by all physicians who seek to orient themselves on the medical-legal principles under discussion.

* * *

Roster for 1935.—The roster of membership of the California Medical Association for the year 1935, with additions and changes of membership up to the date of printing of the March California and Western Medicine, is given place on the opening pages of this number. During the last several years, the Council has been printing the State Association roster in condensed form to provide members with a list which they could easily check with the additional information to be found in the Directory of the California State Board of Medical Examiners. The publication of the roster in this new form, as a part of the official Journal, means a saving in printing expense of more than one thousand dollars.

Last year's roster was printed in California and Western Medicine of September, 1935. It is gratifying to note, that in spite of the hard times, there has been no decrease in State Association membership. And further, that in the largest county unit of the State—in Los Angeles—where the application fee must be accompanied by a one hundred dollar pledge, this fee has not been a deterrent in securing new members; an indication of what a headquarters building and broad society activities can do for an organization. Let us hope that the coming year will be marked by a numerical and percentage increase in members greater than that to the credit of the last several years.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 208.

EDITORIAL COMMENT†

VITAMIN D TOXICITY

Physicians, in company with the general public, have become conditioned during the past two decades to considering vitamins as "accessory food factors." The implication of this conception, which is strongly supported by extensive commercial and advertising interests, is that vitamins are completely harmless and nontoxic, even in the highest conceivable dosage. Hints to this effect are not wanting in medical literature. The recognition of the chemical constitution of vitamins A, B, C, and D during the last five years has put an entirely different complexion on the matter. It must now be recognized that vitamins are drugs and that, in common with all drugs, they do have a definite toxicity in high enough dosage, and that there is a limit to the amount that may be used without invoking dangerous symptoms. The effective dosage of these drugs is very small. For pure crystalline vitamin D, for example, an effective daily dosage is about one-tenth of a milligram. That is, its dosage is less than any other drug now ordinarily employed. It is very important that physicians get away from prescribing vitamin D in terms of obscure units of variable biological activity, and insist that solutions or preparations of it be furnished in such a manner as to indicate clearly the percentage concentration of the pure crystalline material, so that it may be prescribed in milligrams of the pure drug.

Vitamin D has recently been recommended in high dosage in the treatment of arthritis.[1] Dreyer and Reed state that they have treated 700 patients with massive doses of vitamin D, and they admit that sixty-three showed signs of toxicity. This is a relatively high percentage of untoward reaction, and it raises the question as to whether the disease hazard justifies such a pronounced therapeutic hazard. The signs of vitamin D toxicity appear about two weeks after the high daily dosage treatment begins. The patient is nauseated, becomes dizzy, and has tingling in the extremities; and there may be vomiting, diarrhea and polyuria. A patient recently admitted to a California hospital with these symptoms, which were definitely attributed to excessive vitamin D intake, died in coma three days after admission. There is a very definite risk of clinical toxicity with vitamin D, of which all physicians should be aware.

There has been much scientific discussion of vitamin D toxicity. This has been complicated by the confusion between various preparations of irradiated ergosterol with vitamin D. The differences between vitamin D and other irradiated ergosterols is best determined by the study of the absorption spectra of the solutions of the materials. An excellent review of this matter has been prepared by Bills.[2] Vitamin D (calciferol) shows a maximum absorption band at 265 mμ. This material has antirachitic potency of 40,000 international vitamin D units per milligram. Too intense or too prolonged irradiation of ergosterol produces a series of substances with maximum absorption spectra below 250 mμ, which are definitely toxic, and which have only weak antirachitic effects. One such agent is called "toxisterol," because of its high toxic calcifying properties. This shows a maximum absorption band at 248 mμ, and must carefully be excluded from irradiated ergosterols offered for clinical use. The only protection at present afforded the medical profession or the public against the presence of this toxic agent in vitamin D preparations is the care with which manufacturers control their products.

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† This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

[1] Dreyer, I., and Reed, C. I.: Arch. Phys. Therapy, 16: 537 (Sept.), 1935.

There is as yet no evidence to indicate what the chronic toxicity of vitamin D preparations may be, especially if contaminated with "toxisterol." This poisonous ingredient, which may be present in any irradiated ergosterol product if the irradiation is not carefully controlled, *is a powerful calcifying agent, but has no significant antirachitic properties.* This introduces a peculiar danger in the clinical use of vitamin D preparations containing it, since failure to obtain desired results from such preparations may lead the physician to use larger amounts, thus increasing the dose of the toxic factor. Long-continued administration of relatively small amounts of vitamin D preparations, contaminated with "toxisterol," may lead to gradual abnormal calcifications, whose presence may not be suspected for many years. There is clinical evidence indicating that excessive vitamin D itself, or even the natural crude drug containing it, cod liver oil, may promote cardiac disturbances or vascular abnormalities.

When one considers the extent to which the public is subjected to utterly uncontrolled irradiated food products, and the extent of the current fad of self-irradiation, equally uncontrolled, one is justified in expressing a word of caution in connection with the additional prescribing of, or self-medication with, high doses of an extremely potent drug formed by such irradiation. That such a word of warning is not out of place is apparent from the vitamin D deaths reported from England, and the recent one occurring in our own state.

Pharmacological Laboratory,
University of California Medical School.

Chauncey D. Leake, Ph. D.,
San Francisco.

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[2] Bills, C. E.: Physiol. Rev., 15:1 (Jan.), 1935.

GENES, HAPTENES AND AUTOCYTOTOXIC HORMONES*

During the last ten years immunologic research has led to the discovery of four basic physiologic facts:

(*a*) The colloidal and particulate permeability of mammalian epitheliums.

(*b*) Differences between the immunochemic specificity of different organs, tissues and body fluids of an individual and, at different stages of development, maturity and senescence.

(*c*) The "fractional antigenicity" of certain environmental crystalloids ("haptenes").

(*d*) "Heterophile antibodies" (anti-haptenes) that function as autoallergic or autocytotoxic hormones.

To clinical science the new facts suggest plausible explanations for numerous research failures of the past. General biologists may find the new data equally suggestive, particularly in their bearing on current theories of genetics and organic evolution.

CLASSICAL THEORIES OF EPITHELIAL DEFENSE

Belief in the colloidal impermeability of normal skin and mucous membranes was originally deduced from studies of osmotic interchange through sausage-skins, fish-bladders, and parchment membranes.

If egg-white, serum, milk or other proteinaceous material is thus dialyzed, the various simple salts and other non-colloidal components of the material are readily demonstrated in the dialyzate. Protein molecules, however, are apparently retained quantitatively by the membrane, the most delicate colorimetric test failing to detect a trace of protein in the diffusate.

It seemed obvious from such evidence that normal skin and mucous membranes were perfectly designed for the prevention of internal tissue contamination by environmental colloids.

This perfectionist theory became a major premise in practical clinical logic. It followed logically, for example, that food proteins must be hydrolyzed to peptones, amino-acids and other simple crystalloids before they can be absorbed from the gastro-intestinal contents into local capillaries or lymphatics.

Certain individuals are hypersensitive to one or more food proteins. These individuals give no allergic reactions with the final split products of protein digestion. Obviously, therefore, they must have an hereditary or acquired hyperpermeability of the gastro-intestinal mucosa.

RECENT PROOF OF EPITHELIAL PERMEABILITY

Experimental paradoxes and clinical inconsistencies, however, eventually led to a restudy of colloidal diffusion through animal membranes. It was found, for example, that measurable amounts of egg protein can be demonstrated in fish-bladder dialysates, by the simple device of evaporating the diffusate to a small volume and testing the concentrate with a high-titer specific precipitin.[1] From data thus obtained it is evident that in the neighborhood of 0.01 milligram egg protein per square centimeter hour may pass through this most perfect animal membrane.

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* From the Department of Bacteriology and Experimental Pathology, Stanford University.

Presented before the Sigma Xi Club, University of California, Davis, October 16, 1935.

About the same rate of colloidal diffusion takes place through the gastro-intestinal mucosa. By applying some of the newer allergic techniques, for example, approximately one milligram undenatured egg protein has been demonstrated in the normal human circulation, within fifteen minutes after an individual has swallowed a raw egg.[2] In nursing mothers, approximately one milligram undigested egg protein has been demonstrated in the daily yield of breast milk.[3]

Similar amounts of plant protein have been found in the human blood stream within fifteen minutes after applying pollen to the normal nasal mucosa.[4] Contrary to previous clinical deduction, the rate of nasal absorption is less in hay-fever patients than in normal individuals.[5]

Bacterial proteins introduced into the normal human vagina are absorbed at a sufficient rate to stimulate the production of specific bacterial agglutinins.[6] Horse serum applied to palmar surfaces also allegedly stimulates specific antibody production. Alien proteins introduced into the blood stream of pregnant animals soon appear in the fetal circulation.

While there is no evidence that normal skin and squamous mucosa will allow the passage of particulate matter, internal tissue contamination is possible through certain more complex mucous membranes. If India ink, for example, is added to the diet of a laboratory animal, carbon particles may be demonstrated a few days later in the hepatic parenchyma.

Several hundred living bacteria per cubic centimeter have been isolated and grown from the normal canine circulation within ten minutes after intraduodenal instillation of homologous bacterial suspensions.[7] Half an hour after a dog has swallowed a commercial yeast cake, living yeast cells of the same commercial species may be recovered and grown from its liver, lungs, and kidneys.[8]

ENVIRONMENTAL DETERMINANTS OF HISTOLOGIC SPECIFICITY

Tissue contamination with colloidal or particulate matter is not the nutritional equivalent of absorption or contamination with equivalent amounts of digestive products. The final products of normal tryptic digestion retain no trace of the taxonomic specificities of the plant or animal colloids from which they were derived. Alien biochemical specificities, however, are introduced into living tissues as a result of contamination with biological colloids or particulate matter.

The amount of colloidal material necessary to cause demonstrable perversion or transformation of hereditary tissues is remarkably small. One milligram of horse protein, for example, injected subcutaneously into a guinea-pig, may cause specific allergic transformations, persisting for the lifetime of the animal. This allergic perversion may even be transferred to the second or third generation, largely as a result of transplacental fetal contamination. There is suggestive, though as yet inconclusive, evidence of a slight germinal (*i. e.,* spermatic) transmission.[9]

Paradoxic as it may seem, an acquired allergic transformation of hereditary tissues may function as a specific immunity.[10]

This constant "hybridization" of hereditary tissues with environmental colloids, is not a Creative error or Evolutionary imperfection. It is presumably a Purposeful part of evolutionary mechanics. Without this anti-environmental "vaccination," egg white today might have the toxicity of cobra venom, or the common putrefactive bacteria might function as bubonic plague.

HISTOLOGIC SPECIFICITY VERSUS BLOOD SPECIFICITY

Previous clinical theories of tissue specificity were apparently logical corollaries to the belief that cellular taxonomy is determined solely by hereditary genes. This belief was drawn from statistical evidence that blood specificity (*i. e.,* "blood grouping") is transmitted in strict accord with Mendelian laws. Since genes are assumed to be identical in all tissue cells, it seemed obvious that all histologic units of an individual must be of the same taxonomic pattern.

This obvious fact was confirmed by earlier specificity tests. Rabbits, immunized against rat kidney, for example, were found to yield specific precipitins, agglutinins, and hemolysins for rat blood. Immunized against rat blood, they yielded antiserums specifically toxic for rat kidney, liver and nervous tissues.

This unitarian theory of tissue specificity became a major premise in practical clinical logic. Since skin, bronchial musculature and gastrointestinal mucosa, for example, are identical in species specificity, it logically followed that allergic transformations must be qualitatively identical in these parts. An allergic skin test, therefore, was a reliable diagnostic test for the specific protein responsible for pulmonary anaphylaxis or food allergy.

The alleged isolation of bacterial strains with the power of "elective localization" in the kidney, irrespective of the animal species tested,[11] was obviously research quackery. Such a fanciful organ specific tropism would be equivalent to the assumption that kidney cells are of the same biologic species in all laboratory animals.

There was but one tissue then known to be thus non-species specific, the crystalline lens. Lens pro-

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[1] Coca, A. F.: J. Immunol., 19:405, 1930.
[2] Walzer, M.: *Ibid.,* 14:143, 1927.
[3] Donnally, H. H.: *Ibid.,* 19:15, 1930.
[4] Cohen, M. B., et al.: *Ibid.,* 18:419, 1930.
[5] Brunner, N., and Walzer, M.: Arch. Int. Med., 42:172, 1928.
[6] Finder, J., et al.: Proc. Soc. Exp. Biol. and Med., 27:368, 1930.
[7] Nedzel, A. J., and Arnold, L.: *Ibid.,* 28:358, 1931.
[8] Fisher, V.: *Ibid.,* 29:948, 1931.

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[9] Otto, R.: Zeitschr. f. Hyg. u. Infektionskr., 3:644, 1930.
[10] Opie, E. L.: J. Immunol., 9:259, 1924; 17:329, 1929.
[11] Rosenow, E. D.: Newer Knowledge of Bacteriology and Immunology, Chap. 43, p. 573, 1928.

teins are approximately identical in antigenicity in all adult laboratory animals.

Restudies of histologic specificity by modern fractionation techniques, however, have revealed numerous other organs and tissues that do not conform to the earlier unitarian rule. Globulins isolated from the thyroid glands, for example, are immunochemically identical in many animal species.[12] Lipoid-free kidney proteins have been found to be organ-specific, as the discredited "elective localization" implied.[13] The corresponding liver proteins combine organ-specific and species-specific properties.

Brain lipoids are antigenically identical in most vertebrates.[14] These brain-specific lipoids are not present in early embryos. Certain embryo-specific lipoids, however, are present, only to disappear quantitatively shortly before or soon after birth. Lens proteins, nonspecific in the adult, are of hereditary blood specificity in the embryo.

To what extent this loss of hereditary embryonic lens specificity is due to functional use or environmental factors (*e. g.*, photodenaturation) is not known.

POTENTIALLY ANTIGENIC CRYSTALLOIDS

The earlier immunologists assumed that alien proteins are the only substances against which the animal body can acquire an appreciable degree of specific immunity or specific sensitivity. Considerable tolerance was known to develop against certain crystalloids, such as morphin. Morphin tolerance, however, is not serologically transferable, and is believed to be due to increased oxidation functions.

About ten years ago, however a number of experimenters[15] tested the possibility of conferring specific immunizing power upon presumably non-antigenic crystalloids by the simple device of conjugating them with protein "carriers." The specific capsular sugars isolated from type pneumococci were among the first crystalloids ("haptenes") to be thus conjugated. These sugars are not appreciably antigenic on subcutaneous injection into laboratory animals. Conjugated with egg white, however, the resultant saccharocolloids are successful anti-pneumococcus vaccines, protecting rabbits against experimental infection with multiple lethal doses of homologous pneumococci.[16]

Antibodies formed against such conjugates, however, are not strictly specific. They give relatively strong cross reactions with free protein "carriers." Thus, the serums of the above pneumococcus-immune rabbits will also react with egg protein.

The haptene or potentially antigenic crystalloid thus far studied in greatest detail is the "Forssman lipoid." This lipoid is a normal component of certain animal tissues. It is found, for example, in sheep erythrocytes and in the kidney of the horse and guinea-pig. Man and the rabbit, however, are "Forssman-negative."[17]

If Forssman-positive lipo-proteins (*e. g.*, sheep erythrocytes) are injected into a Forssman-positive horse, the resultant opsonins, precipitins, agglutinins, or proteolysins, have no demonstrable anti-Forssman function. Injected into a Forssman-negative rabbit, however, antibodies are formed giving "fractional" reactions with any Forssman-positive material. They react, for example, with Forssman-positive guinea-pig kidney. Injected intravenously into a guinea-pig, this serum may cause death within a few minutes, autopsy showing a hemorrhagic nephritis.

HORMONAL FUNCTION OF SPECIFIC ANTIBODIES

These studies suggested that animals cannot form antibodies against haptenes present in their own bodies, since such antihaptenes would be toxic for one or more of their own tissues.

There is convincing evidence, however, that such autocytotoxic antibodies may be formed, if the process of immunization is sufficiently prolonged. Monkeys given forty or more injections with alien nerve tissue, for example, eventually develop ataxia and paralyses,[18] presumably due to antibodies toxic for the monkeys' own brains.

The only autocytotoxic immunity thus far studied in adequate detail, however, is the auto-antihypophyseal immunity resulting from repeated injections with pituitary products. In rats such immunization eventually leads to a refractory state, characterized by a paralysis of the rats' own pituitary functions. Their basal metabolism is markedly subnormal, approximately identical with that in hypophysectomized rats.[19,20] This pituitary paralysis is serologically transferable.

Of greater interest to general biologists, however, is the well-confirmed fact that prolonged administration of certain ovarian products or "sex hormones" also leads to what is presumably an autoallergic or autocytotoxic immunity, characterized by hypertrophy, atrophy or degeneration of the patient's own ovarian tissues.

Whether or not the presumptive gonophilic antibodies can cause allergic transformations of hereditary genes has not been determined. Immunologists, however, have no reason to postulate that such transformations do not, or cannot, take place.

Proof of the existence of such a Purposeful gene-synthesizing or gene-transforming mechanism in the animal body, "heterophile antibodies" functioning as integrating hormones between environmental colloids and germinal cells, might go far to harmonize modern evolutionary theory with Fundamentalist philosophy.

W. H. Manwaring,
Stanford University.

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[12] Hektoen, L., et al.: J. Infect. Dis., 40:641, 1927.

[13] Moran, F.: Zeitschr. f. Immunitätsforsch., 67:115, 1930.

[14] Witebsky, E.: *Ibid.*, 62:35, 1929.

[15] Landsteiner, K., et al.: J. Exp. Med., 38:127, 1923; 48:315, 1929; 50:407, 1929.

[16] Avery, O. T., and Goebel, W. F.: J. Exp. Med., 50:533, 1929.

[17] For distribution in other animal species, see Bull, C. G.: Newer Knowledge of Bacteriology and Immunology, Chap. 53, p. 733, 1928.

[78] Rivers, T. M., and Schwenther, F. F.: J. Exp. Med., 61:689, 1935

[19] Collip, J. B., et al.: Lancet, 1:76, 784, 1934.

[20] Selye, H., et al.: Proc. Soc. Exp. Biol. and Med., 31: 487, 566; 32:113, 1934

ORIGINAL ARTICLES

CARDIAC CARE AFTER DECOMPENSATION*

By R. Manning Clarke, M.D.
Los Angeles

Discussion *by George Dock, M. D., Pasadena; William H. Leake, M. D., Los Angeles; Eugene S. Kilgore, M. D., San Francisco.*

THE heart is an organ of great reserves, possibly more so than other organs of the body. Sir Thomas Lewis says that when a heart has broken enough to have the early symptoms of decompensation, such as dyspnea, edema, etc., it has lost nine-tenths of its powers. If we accept this theoretical estimate of its reserves as a practical idea, it is clear to see that, when a decompensated heart is restored just enough to lose these early symptoms, it has gained very little, relatively speaking. The enormous margins that it should have are still lacking. It is surely a great mistake for the physician to feel satisfied with relief of the gross symptoms of decompensation. He should feel it his duty to continue supervision of the case until the margins of the heart can no longer be improved. If he has a true understanding of cardiology, he will know ways and means of assisting his patient to restore the badly needed reserves in some measure at least. On this account, he should hold a steady vigilance over these cases for long periods after the gross symptoms of decompensation have disappeared. It is only in this manner that the best results can be obtained, and the time of the next failure be held off.

PURPOSE OF THIS PAPER

This paper has nothing new to present. Its object is only to reiterate and reëmphasize the points that are so important in cardiac care at the time of this period after decompensation. Some patients stop treatment nicely and go on for some time with good compensation. Others are unable to stop treatment at all, or if they do, go for a short time only.

I would like at this time to emphasize the points that help us to tell ahead of time to which class these patients belong, and also assist us in their treatment after they are properly classified. There are many points that are helpful, but time and space will not permit of their discussion. I would like to take the matter up under the four following broad headings: 1. Cardiac rate. 2. Fibrillation. 3. Hypertension. 4. Venous pressure.

CARDIAC RATE

Counting the pulse is such a simple thing to do that we sometimes fail to think of it in terms of the proper respect. Our forbears in medicine learned much from it—more, I sometimes think, than we who have such an advantage over them in advanced knowledge of anatomy, physiology, biochemistry, etc. At any rate, it is still helpful to know the rate of the heart, and a little more so after decompensation than at other times.

After the withdrawal of digitalis, if the rate is inclined to stay above the conventional 72 while at rest, it is well to be wary and throw protection around that case in the way of restrictions and possibly the continuance of digitalis. The higher it stays the greater and more binding is the need for care and watchfulness. The conscientious physician will not drop his patient simply because dyspnea, edema, cyanosis, enlarged liver, etc., have disappeared, but will continue his supervision until he knows just how the heart is going to carry its load, and something about how much margin it has left after the load is carried.

As the rate of the heart increases, it is increased at the expense of diastole, which is the resting period of the heart. It is this fact that works the mischief. The coronary circulation goes into the heart only during diastole. Therefore, as this period is shortened the nutrition of the heart is also "shortened," and it is less able to do its allotment of work. The Thebesian veins are emptied by the squeeze of systole, and then once more the coronary circulation has its chance to nourish the heart during the relaxation of the next diastole.

The exhaustion of any muscle is due to the collection of lactic acid and other metabolites within it. Cardiac muscle seems to be a little more sensitive to lactic acid than the somatic muscles. When one looks at the facilities provided for the venous drainage of the heart, it is not hard, despite this fact, to understand its marvelous powers. This excellent venous drainage keeps it free from lactic acid concentration and the presence of harmful metabolites, and it is therefore hard to exhaust under normal conditions. Now, if a good, long diastole and free venous drainage are necessary under normal conditions, surely they are much more so under abnormal conditions, where a damaged heart is laboring under great handicaps to carry on its work. Many of these handicaps we are powerless to remove; but this question of rate is somewhat under our control, and we should at least watch it carefully under stressful conditions and use whatever powers we have to assist the crippled heart to maintain a moderately slow rate, get good nutrition, and stay free of metabolite concentration and exhaustion, thus building up as much reserve as is possible.

One of the most beneficial actions of digitalis is its ability to slow the rate of the heart, and this is many times the thing that breaks the vicious cycle of decompensation and starts the heart on its road to recovery. Now, after recovery from the congestive load of decompensation, the heart is often just getting by and its margins very, very small. If under these circumstances the patient is discharged, and has no further care or observation, it can very easily mean the early onset of another decompensation. On the other hand, if proper care is given and when the rate tends to get fast, digitalis is continued, the long diastole is maintained and the patient is protected over a long enough period, the whole picture is changed and the prognosis greatly enhanced.

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* Read before the General Medicine Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13 to 16, 1935.

In other words, there are patients who are never able to stop digitalis after decompensation, and watching the rate is one of the ways of spotting these cases. The higher the rate the more dangerous it is to stop digitalis; because, as the rate goes up, lactic acid concentration, the oxygen debt, and other important factors in the vicious cycle of decompensation once more establish themselves, and "the fat is in the fire."

FIBRILLATION

The second thing in our list of four major points is *fibrillation.* This occurs most in thyroid and rheumatic hearts, but may also occur in degenerative lesions quite often. From the standpoint of decompensation, it is the most important arrhythmia because of its relative frequence, as well as from its ability to damage the heart. Fibrillation takes the honors in any list of arrhythmias for many reasons.

The rate of the heart is a prime consideration always in dealing with this arrhythmia. The menace of a fast heart rate has already been dealt with, but all that has been said about the rate is doubly binding in fibrillation. A fast rate in this case is not only bad for all the reasons previously named, but for others also. The prognosis of compensation varies directly with the ability to slow the heart. It is well understood by cardiologists that hearts fibrillating on a slow rate do nearly as well as those on a regular sinus rhythm. I have on rare occasions seen these patients hospitalized and put through extensive procedures in an effort to return them to a normal rhythm. In my opinion they had better be left alone.

Pulse Deficit.—In all fibrillating hearts, some of the contractions are weaker than others, and at times these grow so weak as to be unable to lift the aortic leaflets at all, and hence fail to propel the blood stream in its onward direction. It is a very exhausting thing for the heart to have a contraction that accomplishes nothing. It wastes and dissipates its energy in a most harmful manner. As the rate of the fibrillating heart goes up, these weak ineffectual contractions increase very rapidly in number and in proportion to the effectual beats. We have only one method of preventing these contractions, that is to reduce the rate, thereby greatly reducing their number or proportion. As has been explained, a fast rate is exhausting to any heart; but to a fibrillating heart it is doubly so because, in addition to the shortened diastole and its ill effects, is added the terrific loss of energy due to these weak and ineffectual contractions that become so numerous with the increase of rate. Fortunately, we have in digitalis a splendid instrument to assist us in controlling the rate and we must not fail to use it intelligently. We must not hesitate to continue its use indefinitely, if it is necessary to protect a struggling heart from the short diastole in any rhythm and from the pulse deficit of fibrillation.

The pulse deficit is so easily figured, by subtracting the rate as obtained at the wrist from the rate as obtained at the apex, that it pays everyone to do this, and have it charted if the patient is hospitalized, or has sufficient nursing care. It is very striking to watch the graph of the pulse deficit correct itself as the case is digitalized and otherwise compensated by good care. Auricular fibrillation is a vicious complication, and this by no means exhausts the listing of its dangers or the charges that can be brought against it. This only serves to emphasize the two most serious things that we need to watch in a heart that is struggling to regain power and reserves after a failure, when fibrillation is present. To do this is so easy, simple and practical that it needs to be constantly emphasized.

HYPERTENSION AND DEGENERATION

I wish to say that it is not the intention to in any way discuss hypertension. Rather, I wish to emphasize some points of our knowledge of physiology of the circulation and its hydrodynamics that can be used in a practical clinical way in thinking about these hearts that have once decompensated.

If hypertension is present and cannot be controlled, it greatly detracts from the general outlook, as far as preventing recurrences of the decompensation are concerned. So we should hold carefully in mind this fact, and if our patient has a hypertension after decompensation that we cannot reduce we must be cautious, for this case is in direct proportion to the degree and severity of the hypertension.

The reasons, while obvious, will bear repeating. The systolic pressure measures the working force of the heart. If it is high, it means that the heart is maintaining circulation by an expenditure of power that is at a much higher level than otherwise. This obviously will exhaust it more rapidly. Therefore, if it can be brought down by any means whatsoever, it should be done so as to conserve the energy of a struggling heart.

The diastolic pressure is the measure of pressure at the end of ventricular diastole. It measures the peripheral resistance as determined largely by the tonus of the arterioles. It is not so subject to influence nor to variations as the systolic pressure, and on this account is a better indicator of the work required of the heart. If the diastolic pressure is high, it simply means that the heart must expend that much more energy to lift the aortic valves before it can expend any energy in actually propelling the blood along the highway of the arterial system, toward the end of nourishing the body and otherwise carrying on the metabolism of the system or relieving the congestive load. On this account, if the diastolic pressure is high, it greatly adds to the burden of a heart that has been once decompensated and is struggling to carry on with greatly narrowed margins. Every effort should be put forth to reduce it.

The pulse pressure represents the changes in pressure that occur in any given artery as a result of the heart's contractions. This is, therefore, a measure of the force that is driving the blood toward the periphery. This is an accurate way of estimating the "load" that the heart must carry to maintain circulation. When this pulse pressure is high the heart is carrying more of a load to maintain circulation than it should. It is clear then that to increase the power and reserves of the heart, it is well to reduce this pulse pressure if it is at all possible. Practically speaking, there are five diseases that carry an increased pulse pressure. This little list should be kept well in mind, for whenever you meet one of them in routine examination you at once know that you are dealing with a heart that is expending more energy than it should to do its work. It this happens to be after a decompensation, it is also very evident that it would be well to do what is possible to reduce this pulse pressure toward the end of saving the heart the expenditure of unnecessary energy. The turning of this energy rather into reserves is of prime importance. The list is as follows: hypertension; hyperthyroidism; aortic regurgitation; heart-block; and acromegaly.

However, it is unfortunately necessary to admit that there are many cases of essential hypertension that we are unable to influence.

If there is any means that will hold the pressure down for any case of decompensation, as the patient is getting around again and beginning to look with hope to the future, it should be used. Its successful and continued use may add much time to the productive activity of the individual.

The Degenerative Lesions.—The greater the degree of arteriosclerosis atheromatous disease and fibrotic degeneration, the greater are the dangers to the heart after decompensation. This is one of the reasons why digitalis sometimes gets such a poor response in the aged. Nothing can make fibrotic tissue contract or assist the heart in its contractions. Therefore, when fibrotic replacement exceeds a certain definite amount, the muscle that is remaining finally becomes inadequate. If compensation is restored in such a heart, its ability to hold that compensation is, of course, in direct relation to the degree of degeneration that has occurred in it. It is seldom that a patient exhibiting pulsas alternans lives more than two or three years after its permanent onset under any circumstances, to say nothing of one that has been or is decompensating.

Extensive distortion of the great vessels over the heart, the presence of extensive hypertrophy of the myocardium, and the presence of pulsas alternans should always be taken into consideration when thinking of the prognosis and aftercare of a decompensated heart.

VENOUS PRESSURE

The normal venous pressure lies somewhere between 8 and 20 millimeters of water. In 1915 A. H. Clark published "A Study of the Diagnostic and Prognostic Significance of Venous Pressure in Cardiac Disease." He established at this time the fact that a venous pressure of 20 millimeters of water or over was a sign of cardiac failure. The moment the right ventricle allows the slightest residue of blood after systole, just that moment the venous pressure starts to rise. Eyster and Middleton in their publications have repeatedly pointed out the clinical value of this point. In other words, we should remember that venous pressure is an excellent indicator of right heart efficiency and, generally speaking, of the myocardium as a whole.

It is unfortunate that we do not possess better means of making a clinical, bedside reading of venous pressure than we do. Middleton has produced an instrument for doing it, but it has not met with wide recognition and use. However, there are many practical ways of estimating it clinically, and we need to constantly remind ourselves of these things. One of these things is that urine volume and venous pressure vary inversely. It is, of course, of no trouble to turn this to clinical use.

We need no instrument to enable us to observe the veins of our patient. If they stand out like whipcords it should make us stop and think, and of course means an increased venous pressure. The veins of the hands and arms should collapse or at least reach a theoretical zero of pressure when the arm lies at the cardiac level in a relaxed state. If they do not do so, it means an increased venous pressure. The veins of the head and neck, for obvious reasons, should have a negative pressure in them, more than that of the veins of the lower parts of the body and should be collapsed. If they are not so, then we know there is an increased venous pressure and a right heart that is threatening to decompensate if it has not already started to do so.

These are valuable clinical findings and indicators. When a decompensated case is convalescing and we are in doubt about stopping digitalis or about how much activity we can allow the patient, these are very important things to think about to guide us in forming that opinion. It is interesting to note in passing that Eyster and Middleton have shown venous pressure after venesection to be an excellent indicator of prognosis as to whether or not compensation will be restored after venesection in decompensation. "If the heart muscle responds adequately to the reduced load, the venous pressure will remain low, and the subjective and objective evidence of cardiac decompensation will subside. On the other hand, an early sharp rise in the venous pressure, or a steady return to its original high level, points to a lack of myocardial reserve and no continued clinical improvement can be expected."

TO SUMMARIZE

To review, in closing, our discussion of this clinical question of the care of the heart after decompensation, I wish to emphasize that I believe they fail of receiving the proper consideration during this time. I believe these patients could live much longer and with greater comfort and efficiency if more attention were given them after the gross signs of decompensation have disappeared. This paper is put forward as a means of emphasizing important landmarks that should guide us in our decision regarding them.

If digitalis needs to be continued to protect the weakened reserves of the heart, let us not hesitate to use it—indefinitely, if need be. Restrictions regarding rest and all activities should be continued in proportion to the need.

The four major things to be considered in deciding the need for continuation of treatment are as follows:

1. If the rate is above 72, at complete rest.
2. If fibrillation is present with a large pulse deficit (the faster the rate the more binding this statement).
3. If venous pressure is increased, as evidenced by prominent veins, especially in head and neck, or the arm if fully relaxed and resting at the cardiac level.
4. If hypertension is present, with markedly increased pulse pressure.

606 South Hill Street.

DISCUSSION

George Dock, M. D. (94 North Madison Avenue, Pasadena).—As I followed Doctor Clarke's presentation, I realized that I was listening to an unusually complete and sensible treatise on a very important class of patients. I noticed nothing important to criticize, but thought that here was a good paper to study when it appeared in print. It would be useful to every reader, no matter what his line of practice, to read paragraph by paragraph and ask himself whether he has known and observed all the points presented. Let me mention some of the points that I think especially worthy of emphasis. The matter of continuing supervision until the very best results have been obtained, is still occasionally forgotten. The matter of pulse counting is just as important, and it is strange that while instruments of precision have increased the value of the pulse in diagnosis, not a few patients express surprise when they find their radials objects of interest, and tell us they understood pulse feeling is no longer necessary. I am pleased to see the assumption that digitalis is the great remedy in patients with decompensated hearts. The physician should be very sure he has given digitalis a chance before he discards it for something else. The discussion of pulse deficit is very good, and here, too, minute observation of the situation is not sufficiently carried out. The pulse count is noted without regard to the apex beat only too often. At one time Sir James Mackenzie would not allow pulse counts made by nurses: all had to be made by physicians and checked by polygraph. Of course the latter can be dispensed with, but never combined counting of heart and radial. I close by repeating my advice as to careful study of the paper.

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William H. Leake, M. D. (1930 Wilshire Boulevard, Los Angeles).—The after-care of patients who have recovered from congestive heart failure is of vital importance. It is regrettable that cardiac patients are discharged frequently by the physician with little or no advice concerning subsequent activities and medication. Systematic follow-up examinations are of great value in detecting signs of early heart failure, thereby enabling the physician to institute appropriate treatment.

Digitalis is a drug of inestimable value in the treatment of congestive heart failure but, unfortunately, it is used too sparingly by many general practitioners. The lack of response to digitalis in congestive heart failure accompanying the rheumatic and the degenerative types of heart disease, is frequently the result of inadequate dosage. This is especially true of the first attack. It must be remembered that with each "break" in compensation, response to treatment is less satisfactory. Heart failure secondary to syphilitic heart disease is notoriously resistant to digitalis therapy.

The necessity for counting the heart rate at the apex when arrhythmia is present must be emphasized. It is my opinion that the apex rate should be taken routinely in all cardiac patients, regardless of the rhythm. The frequent presence of "pulse deficit" in association with untreated auricular fibrillation, is well recognized. Attention should be called, however, to the existence of "pulse deficit" in certain cases of extrasystolic arrhythmia, auricular flutter and paroxysmal ventricular tachycardia. The "pulse deficit" disappears, as a rule, when the heart rate falls below 80 per minute. Attempts to revert established auricular fibrillation to normal rhythm by the use of digitalis are usually unsuccessful. This is of no importance, inasmuch as this type of irregularity causes little discomfort, provided the apex rate is not too rapid. The dosage of digitalis in chronic cardiac patients should be sufficient to maintain the heart rate between 50 and 70 per minute when the individual is at rest.

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Eugene S. Kilgore, M. D. (490 Post Street, San Francisco).—Doctor Clarke rightly emphasizes the importance of the less obvious in the care of heart patients; and what he says might well be applied also to the period before definite decompensation has occurred. The earlier and milder manifestations of disease should receive more attention in medical teaching and in medical practice, and this is especially true of heart disease.

In the particular problem under discussion—the gauging of the return of cardiac reserve after decompensation—my interpretation of the criteria suggested by Doctor Clarke differs in certain respects from his. The pulse rate is affected by many factors other than the degree of cardiac reserve present. Many persons obviously in good health have, under conditions of rest, a pulse rate much over the conventional seventy-two. I once observed a young man who undoubtedly had excellent cardiac reserve (he was a very good sprinter), but whose pulse rate at rest was 180 to 200. Change in pulse rate may be of greater significance than the rate itself. A declining pulse rate is, of course, the rule during recovery from congestive failure; but while this is an important index of improvement, it does not seem to me to be the best general guide in controlling digitalis dosage, for the reason that the chief effect of the drug is not reflected in the rate of the sinus pacemaker. In treating congestive failure, the best effect of digitalis appears just below the toxic level; and it is usually desirable, after digitalis saturation, to continue the drug at a level a little below this and well through the period of convalescence, the dosage being guided by the appearance of toxic manifestations on the one hand and, on the other, by the ensemble of favorable effect on the pulse, the respiration, kidney function, the color and general appearance of the patient. Patients who have atrial fibrillation form the one notable exception where usually the pulse rate alone is an all-sufficient indicator of the digitalis effect.

The rising blood pressure frequently seen during recovery from decompensation is usually a return toward a higher level which antedated the failure. With Doctor Clarke, I see in this the disadvantage of added work for the heart, but it may also mean a better flow through the coronaries and renal vessels; so that, while unfortunate in certain ways, in general it is to be regarded as a favorable omen. A similar interpretation is applicable to the expanding pulse pressure frequently seen during recovery from heart failure.

To the items which Doctor Clarke has mentioned as guides in the management of convalescence, I would add the general appearance of the patient (facies, respiration, color, kidney function, etc.), and the patient's own observations. Remembering that, before any important cardiac reserve is established, the patient may become entirely comfortable at rest, the return to activity must, of course, be very gradual. For patients who have been orthopneic, the return to a horizontal sleeping posture should be accomplished cautiously. This and the later getting out of bed, walking a few steps, climbing stairs, etc., should all be regulated, not merely within the limits of comfort, but within limits which produce very little effect on pulse rate and respiration.

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Doctor Clarke (Closing).—We have all observed hearts with a high rate that were slowed by exercise. It is quite probable that, could Doctor Kilgore have counted the pulse of his sprinter when he was in the middle of the hundred-yard dash, he would have found his rate very much lower than 180 or 200. The difficulty with this suggestion of

Doctor Kilgore's is that the sprinter's heart was undoubtedly of a sinus rhythm. Had he been working under an arrhythmia, I am sure he would not have gotten very far on the cinder pathway without going into a heap. The faster a fibrillating heart goes the greater is its arrhythmia and the more damage to its reserves. Surely, Doctor Kilgore would not try to tell us that the slowing of a pulse rate and the lengthening of its diastolic period is not good treatment, and an important point to observe in recovery from decompensation.

THE ASCHHEIM-ZONDEK TEST FOR PREGNANCY*

By E. Henry Ruediger, M.D.
San Diego

Discussion *by Gertrude Moore, M. D., Oakland; Alvin G. Foord, M. D., Pasadena; George D. Maner, M. D., Los Angeles.*

THE early work of Aschheim and Zondek[1] on sex glands and sex hormones progressed slowly because the rabbit was the only known suitable animal for the purpose. Rabbits became scarce and expensive, and some other animal had to be found. They soon found that immature white mice and immature white rats were suitable.

Working with immature female white mice they[2] showed that ovarian hormone in the blood or in the urine of a woman does not indicate pregnancy, and that fairly large quantities of ovarian hormone can be demonstrated in the blood and in the urine of women in many conditions besides pregnancy. They found that presence in the blood and in the urine of a substance which in the test animal causes hemorrhagic follicles and cellular proliferation in the ovaries, and probably premature ovulation like the reaction following the injection of an extract of the anterior portion of the pituitary gland, indicates pregnancy. They considered this substance to be a hormone secreted by the anterior portion of the pituitary gland.

VALUE OF STUDIES OF ASCHHEIM AND ZONDEK

Aschheim and Zondek[3] then showed that the test is practically specific for pregnancy by applying it to many other conditions with negative results. Twenty-six urines of normal, menstruating women all gave negative results. Six urines from old women gave negative results. Sixteen urines of unknown source gave results that agreed with the clinical findings. Three urines from women with irregular menstruation gave negative results. Of sixteen urines from men, one gave a positive result which could not be explained. Fifteen urines from women with internal diseases gave negative results. One urine from a woman with cystitis gave a positive result. Of three urines from acromegaly, two were highly toxic; they killed all the animals and one gave a positive result. Thyroid diseases gave negative results. Of twelve urines from women with infections of the genital organs, ten gave negative results and two gave positive results, and one of these had received Roentgen-ray treatment. Ten benign ovarian tumors and eighteen uterine myomas gave negative results. One case of uterine myoma gave a positive result and was found to be pregnant. Of sixty urines from women with cancer, fifty-eight gave negative results and two gave positive results. The two urines that gave positive results came from women with carcinoma of the ovary. Of 197 urines from normal pregnant women, 195 gave positive results and two gave negative results, and these gave positive results a few days later. After delivery, the results were always negative in eight days and frequently in five. After death of the fetus in utero, and after abortion the results became negative as soon as after normal delivery. In tubal pregnancy the results were positive while the fetus was alive, but soon became negative after the death of the fetus. Two urines from women with hydatidiform mole gave positive results.

In 1929, Friedman[4] reported on thirty-six urines from pregnant women, all of which gave positive results in rabbits.

OUTLINE OF AUTHOR'S STUDIES

The work reported here was done on rabbits, and the following questions are considered:

1. The most suitable age of the rabbit.
2. The time required for the reaction in the rabbit.
3. The Aschheim-Zondek test with urine from normal men and with urine from normal nonpregnant women.
4. The Aschheim-Zondek test in pregnancy.
5. Preservation of urine for the Aschheim-Zondek test.
6. The Aschheim-Zondek test in various pathologic conditions.

The Age of the Rabbit.—Female rabbits two months old, from three to four months old, and some adults were injected with urine from the same pregnant woman. The rabbits between three and four months old reacted better than the younger or older rabbits. I prefer rabbits between three and four months old.

The Reaction in the Rabbit.—A number of rabbits were inoculated at about the same time with urine from a pregnant woman; then some were examined after twenty-four hours, some after forty-eight hours, some after seventy-two hours, some after five days, some after seven days, some after ten days and some after twenty-one days. Twenty-four hours after injection there was a slight reaction in the ovaries; it was good after forty-eight hours; it reached its height in four or five days, then gradually subsided, leaving scarred masses with a few hemorrhagic points by the end of twenty-one days.

Urines from Normal Persons.—Five urines from normal men, five from normal nonmenstruating women, and five urines from five menstruating women all gave negative results.

Urines from Pregnant Women.—All rabbits were between three and four months old, and for diagnostic test each rabbit received about 12 cubic centimeters of urine, with a specific gravity of

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* From the Pathological Laboratory, Mercy Hospital, San Diego, California.

1,020 intravenously, and was killed for examination two or three days after the injection. More than one hundred urines from pregnant women have been tested to date, and all gave positive results. On titrating some of these urines for hormone content, the highest titers were obtained fairly early in the pregnancy. Urines from women two months pregnant usually contained about five rabbit units per cubic centimeter (0.2 cubic centimeter of urine usually produced a fair reaction). In the fourth or fifth months, the urine contained two or three units per cubic centimeter, while at full term the urine contained about one unit per cubic centimeter. Of five patients who were examined after delivery all gave negative results with 12 cubic centimeters of urine, the usual test dose in five days. Urine usually contained twice as much hormone per cubic centimeter as did blood serum.

Tubal Pregnancy.—Four urines from women with ruptured tubal pregnancy were examined; two gave positive results and two gave negative results.

Abortion.—Four urines from women with incomplete abortion were examined; two gave positive results and two gave negative results.

Preservation of Urine. — Urine preservative tablets as supplied by life insurance companies were added to three urines from pregnant women, and the urines were kept in a dark place at room temperature. A year after having been voided these urines still gave positive results, but the titer of each urine had dropped from more than five rabbit units to about one rabbit unit per cubic centimeter.

THE TEST IN RELATION TO VARIOUS PATHOLOGIC CONDITIONS

Irregular Menstruation.—One urine from a woman with irregular and abnormal menstruation gave a negative result.

Chorio-epithelioma.—One case of chorio-epithelioma came under observation. The women expelled a hydatidiform mole and the urine of the patient gave a strongly positive result with the Aschheim-Zondek test. After expulsion of the mole the uterus remained large, there was much bleeding, and in three weeks the Aschheim-Zondek test had not become negative. The uterus was removed and showed extensive growth of chorioadenoma. The Aschheim-Zondek test became negative in a few days and was still negative five months after the hysterectomy. At the present time, three years after the hysterectomy, this patient appears to be perfectly well.

Systemic Diseases.—Three urines from women with diabetes and two urines from women with syphilis gave negative results.

Acute and Chronic Inflammations.—Two urines from women with mastitis, five urines from women with endometritis, five urines from women with appendicitis, and five urines from women with acute salpingitis gave negative results.

Thyroid.—Five urines from women with thyroid disorders gave negative results.

Benign Growths.—Ten urines from women with fibromyomata of the uterus were tested. Seven gave negative results and three were positive. In the uteri of those giving positive results, remnants of placental tissue were found which indicated recent abortion. These cases were operated on because of sudden severe hemorrhage. Five urines from women with ovarian cysts, one urine from a woman with teratoma of the ovary, and one urine from a man with teratoma of the testicle gave negative results.

Malignant Growths.—Three urines from women with carcinoma of the ovary, five urines from women with carcinoma of the uterus, five urines from women with carcinoma of the breast and three urines from women with carcinoma of the stomach gave negative results.

SUMMARY

Rabbits from three to four months old reacted better to the pregnancy hormone than did younger rabbits or older rabbits.

The reaction in the rabbit's ovaries developed slowly and subsided more slowly. It required from four to six days to reach its height and about a month to subside.

False positive results were not obtained with urines from normal men and with urines from normal nonpregnant women.

Urines from more than one hundred pregnant women all gave positive results. I have not yet obtained a false negative result.

Urines from pregnant women received preservative and were kept for one year. One year after having been voided they still gave good positive results, but had lost 80 per cent of their original titer.

Positive results were not obtained with urines from men and women suffering from various pathologic conditions, except in hydatidiform mole and in chorio-epithelioma.

Mercy Hospital.

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DISCUSSION

Gertrude Moore, M.D. (2404 Broadway, Oakland).—That the clinician has learned to rely on the present-day hormone test for pregnancy, is increasingly evident. The test, when properly performed, justifies this confidence; for it is possessed of a high degree of accuracy, equal to that of most laboratory procedures. Depending as it does on the presence of living chorionic cells in contact with the circulation, it is not surprising that the highest titers are reached, not in normal pregnancy, but in those malignancies in which the neoplastic tissue is a new growth of chorion derivatives. It is, therefore, very positive in hydatidiform mole, and in chorio-epithelioma of either the male or female sex glands. Positive findings occur in pregnancy only while there is living chorion in contact with the maternal circulation, becoming negative rather promptly upon the separation or disintegration of this structure. For this reason the test is positive in almost 100 per cent of normal intra-uterine pregnancies, but falls far short of this ideal in ectopic pregnancy, as is noted in Doctor Ruediger's series. In tubal pregnancy, tubal abortion or rupture with death of the fetus and disintegration of the product of conception is not uncommon. Similarly, in intra-uterine pregnancy, a complete separation of the product of conception from the maternal wall may occur, with a negative reaction resulting, even though the sac has not been expelled. A dead fetus with living chorion attached to the uterine wall continues to give positive reaction. I would like to stress a few practical points, the performance or lack of performance of which makes the difference between a reliable result and one of questionable value.

The selection and care of the rabbits used in the test have an importance not to be overlooked, if we would have the highest attainable accuracy. The habit of some workers of buying rabbits of unknown age and mating history cannot be too strongly condemned. Injecting one such animal, and relying entirely upon the results obtained, is not the highest type laboratory procedure. The fact that fair results are obtained does not justify us in an indifference to the possibilities of materially improving the test if all possible safeguards are thrown around the procedure. The animal's age must be known in order to be sure of sexual maturity, for immature ovaries do not react. They must be kept in isolation, preferably for thirty days, since contact with animals, even of the same sex, may induce ovulation and destroy the value of the test. At least two animals should be used to each test, for it has been clearly demonstrated that about three and one-half per cent of mature rabbits are refractive to the hormone, and if used alone will give false negative reactions.

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Alvin G. Foord, M. D. (Pasadena Hospital, Pasadena). Doctor Ruediger's results coincide, I am sure, with those of others doing sufficient numbers of tests to warrant conclusions. His selection of rabbits between three and four months of age is a point of great importance. Particularly is the use of too young rabbits to be condemned. Some of the earlier failures in using the rabbit test were due to this mistake. Another occasion for false negatives in the presence of pregnancy is the tendency of some physicians, usually at the insistence of their patients, to ask for a test too early in the pregnancy, such as one to three days after the menstrual period has been missed. Since it requires a certain length of time for sufficient hormone to be developed and excreted, it is best to wait at least ten days after the missed menstrual period before doing the test. In a small number of cases where the exact length of time between coitus and the rabbit test is known, it has been found that positive reactions cannot be expected before twenty-one days. In the case of a wife of a physician, however, when the test was made in our laboratory, where the time was accurately estimated, a positive Friedman result was obtained sixteen days after coitus, and subsequent obstetric history verified the time factors.

I personally believe, as does Doctor Ruediger, that false positives in non-pregnant women are usually due to laboratory error. Some of the earlier figures reported include such mistakes. In cases of teratoma testis, positive reactions with the rabbit are rare. The animal is too big and not sensitive enough for the amount of hormone passed in the urine. The mouse should be used instead, using Ferguson's technique or some other concentration method.

In conclusion, I wish to state that, inasmuch as a different animal is used, it appears to me only just that the rabbit test be given the name Friedman test, and that the mouse technique be called by its original name—the Aschheim-Zondek test.

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George D. Maner, M. D. (657 South Westlake Avenue, Los Angeles).—The author entitles his paper "The Aschheim-Zondek Test for Pregnancy," but in the text refers to the use of rabbits; so I presume the test under discussion is, in reality, the Friedman modification of the Aschheim-Zondek test. The fundamental principles underlying both are the same, viz., production of changes in the gonads of the test animals by a gonadotropic hormone present in pregnancy urine. In the Friedman modification, the urine is injected intravenously into female rabbits.

The amount of urine within certain limits used seems to be immaterial—amounts varying from 5 to 20 cubic centimeters having been used by different observers; but it seems that the greater number of workers prefer from 10 to 22 cubic centimeters doses. Single injections of this amount, or multiple injections of split doses have been used with remarkably uniform parallel results. Either preadolescent, adolescent, or adult doses, may be used. In adult animals, experimental data show that ovulation is complete in ten hours; and some few workers even record their final reading or report at the end of eighteen to twenty hours, while others prefer longer periods such as thirty-six to forty-eight hours. Thus it appears that the time elapsed after injection does not have much bearing upon the accuracy of the test. I am in accord with the author that it is best to wait forty-eight hours before reporting final results.

The author brings out an important practical point in regard to the preservation of the urine specimens, and the maintenance of the hormone content in high concentrations. Another important and interesting observation is in his findings of high concentrations of hormone (amounts equivalent to 0.2 cubic centimeter) in early pregnancy. This is important and should be borne in mind, in that one finds frequent reported statements in the literature that "positive reactions in amounts less than one cubic centimeter urine" or "in amounts one-twelfth the usual dose of 10 cubic centimeters," are significant and constitute strongly presumptive evidence of molar pregnancy or chorio-epithelioma.

The author is quite fortunate in not having any false or incorrect negative reactions in his series, inasmuch as a small percentage of rabbits, for some unknown reason, are refractory to the hormone.

I regret that the author did not go more into detail as regards the application or limitations of the test to the diagnosis of ectopic pregnancy. I wonder if the two negative tests in his series were considered as incorrect negatives, or whether tubal rupture or abortion had occurred before the urine was obtained. In the latter instance one would expect the test to be negative in that the chorionic epithelium was either nonviable or not in contact with the circulation of the host. By the Friedman test a negative reaction may be obtained in about twenty-four hours after the separation of the placenta, in both uterine and extra-uterine pregnancy.

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Doctor Ruediger (Closing).—Some credit is usually given the originator of a test. Aschheim and Zondek showed that during pregnancy a hormone is excreted in the urine which, when injected into other suitable female animals, produce a marked reaction in the ovaries. According to Aschheim and Zondek, the female rabbit was the first animal used; but rabbits were expensive. They then found that immature white mice and immature white rats also were suitable for the test, and they used mice because these were the cheapest.

Widal used the agglutination test as a diagnostic test for typhoid fever, and although the present agglutination test differs greatly from Widal's original test, it is frequently called the Widal test.

Wassermann used the complement fixation test as a diagnostic test for syphilis. This test was called the Wassermann test. Modifications have been many, but the test in general is still known as the Wassermann test. In my opinion, somewhat modifying or developing a test cannot be considered originating a new test.

Contrary to Doctor Maner's experience or opinion, I have not obtained negative results twenty-four hours after the birth of the child; negative results were obtained five days after delivery.

In the cases of tubal pregnancy all had ruptured, some probably fourteen days before the operation.

CANCER STUDIES: IN RELATION TO RESULTS OF TREATMENT WITH AN AQUEOUS EXTRACT MADE FROM THE CORTEX OF THE SUPRARENAL GLAND

A FIVE-YEAR REVIEW ON TREATMENT RESULTS IN INOPERABLE AND HOPELESS MALIGNANCIES*

REPORT ON 7,513 CASES

By Walter B. Coffey, M.D.
and
John D. Humber, M.D.
San Francisco

The cause of and the treatment for cancer constitute a problem of very vital importance to the public, to every medical school, hospital, and to the entire medical profession.

It is only within the last thirty-five years that this disease has been studied systematically from the experimental point of view.

PART I

DISCUSSION OF THE UNDERLYING PRINCIPLES IN THE FIVE-YEAR STUDIES BY THE AUTHORS

* * *

Woglom, in a meeting of the Pathological Society held in Philadelphia in 1931, divided this period of thirty-five years into three decades.

First Decade: (*a*) The transplanting of malignant tumors; (*b*) a method of protection against inoculation; (*c*) the resistance of cancer cells to various agents; (*d*) the hereditary nature of cancer in mice and (*e*) the transmissibility of sarcoma of the fowl was discovered.

Second Decade: (*a*) The growth rate of the cancer cell was determined and (*b*) two methods of producing experimental tumors were discovered.

Third Decade: (*a*) Another method of producing tumor growth was reported; (*b*) the chemical nature of the carcinogenic hydrocarbons in tar was established; (*c*) the amount of irritation necessary to initiate neoplasia was determined, and (*d*) some idea of the vast extent of the cancer problem—obtained from the fact that during the past five years in the research clinics conducted by us, we have had under observation 7,513 patients afflicted with cancer.

PRESENT OR FOURTH DECADE STUDIES

We are now in the *fourth decade*, studying the metabolism of the cancer cell and the endocrine imbalance as the probable cause of malignant tumors. Enough experimental work and evidence will be given to show that these newer points of view are proving to be of unusual importance to the understanding of the nature of the malignant process.

The American College of Surgeons, as well as many other organizations, has made cancer research a part of its permanent program.

HIGH CANCER MORTALITY EMPHASIZES NEED OF INTENSIVE EXPERIMENTAL STUDY

We are all familiar with the high and tragic death rate in our own country because of cancer, and it behooves all of the medical organizations, foundations and societies to continue to enlist their best efforts against this scourge. Some organizations have for their primary object research study relating to the cause of cancer; others exhibit more interest in the control of patients and profits. I think you will agree with us that the problem should be kept free from any semblance of commercialism.

AUTHORS' STUDIES IN LAST FIVE YEARS WERE CONFINED TO HOPELESS CASES

It should be kept in mind that our work of five years' clinical study and research has been entirely among the hopeless cases, suffering from some form of malignancy; all abandoned because present usages, such as surgery, x-ray and radium, were of no avail. It has been our uniform policy to refer all incipient or early cases to present usage for treatment.

AUTHORS' VIEWS CONCERNING THE CONSTITUTIONAL NATURE OF MALIGNANCIES

At the inception of our work, theoretically we were of the opinion that malignancies were constitutional and could be explained on the basis of a deficiency; that the normal functioning of the cell was a mitosis; that there was a controlling element to govern this act, or function; that this chemical governing element was an active principle or hormone supplied by the adrenal cortex, and found in other tissues of the body. Quoting from our original article published in the September, 1930, issue of California and Western Medicine:

"First, cells with no definite function, and without a controlling element, might become what we would then term 'anarchistic cells,' growing and multiplying at a rapid rate without proper relationships to other tissues and cells of the human body.

"Second, if cells of the human body, during their functional activity, received an insult by bacterial irritation, trauma or otherwise, such cells might likewise begin to multiply and give expression to themselves," and, we might add, in the form of pathological mitosis. In any case, a controlling element, that is, a chemical governor, or stabilizer, is necessary for the normal function of a cell.

AS TO THEORIES ON ETIOLOGY OF CANCER

There have been many theories as to the cause of cancer, the most common of which is trauma. Of course, trauma may be divided into many types: that of direct blows, chronic inflammatory conditions, and it is probably consistent to include, under this heading, from the standpoint of an irritating process, the parasite, virus and bacterial agents—these organisms acting either as a direct irritant or indirectly affecting the chemistry of the cell.

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* Read at the St. Francis Hospital meeting of the session of the American College of Surgeons, October 22-November 1, 1935, at San Francisco, California.

In the medical literature we find that the incidence of the increase of cancer of the lung, pharynx and larynx during the past several years, from surveys made in the large cities of the world was due, it is assumed, to irritation from carbon monoxid, produced chiefly from the exhaust of gasoline engines.

Carozzi of Geneva, at the International Cancer Congress at Madrid, 1933, mentioned the increase, in a reverse ratio, in cancer of the rectum in females, which is commonly attributed to the common use of heavy oil. If such is correct, both of these could, likewise, be placed in the category of traumatic irritation.

THE INDIVIDUAL CELL AS A BASIS FOR INVESTIGATION

In this *fourth decade,* in the field of pathology, it is recognized that the individual cell is the basis for most investigation. Investigators are studying the anatomical structure of its physiology from the viewpoint of both metabolism and catabolism; that is, the study of the chemical and biochemical nature of a cell, and the changes which might take place in its histological structure, which would lead on to a pathological mitosis.

IN MALIGNANCIES, HOW DOES NORMAL CELL TAKE ON PATHOLOGIC NATURE?

In our original paper we called attention to the fact that malignancy should be studied from the physiological, biochemical and histological standpoints, and also the reason behind the mystery of the change from a histological to a pathological mitosis.

What are the influences and underlying reactions which are taking place in this cell, which eventually bring about this pathological condition?

The study of the relationship between carbohydrates, lipoids, amino acids and other constituents involved in anabolism and catabolism, may help to solve this problem.

When the normal cell life is altered to any degree, with a perversion of its original function, it can then become what we term a malignant cell.

Any change in the normal function of a cell depends upon two factors: intrinsic or extrinsic influences. Abnormal changes in the action of either of these two properties cause a mutation of the cell to a different form, or result in its final extinction.

AUTHORS' VIEW THAT THE CONSTITUTIONAL FACTOR BEHIND THE CANCER CELL IS A DEFICIENCY OF AN ACTIVE PRINCIPLE SUPPLIED BY THE CORTEX OF THE ADRENAL GLAND

In the development of the malignant cell, the underlying constitutional factor is intrinsic, due, we believe, to the deficiency of an active principle supplied by the cortex of the adrenal gland, and found in varying quantities in tissues throughout the body. This active principle, or hormone, when normally supplied, prevents the mutation of the normal cell characteristic of malignancy.

CONTRADICTORY REPORTS CONCERNING ADRENAL EXTRACTS

Although several investigators report that they have obtained negative results with adrenal extracts in experimental tumors in animals, it is also true that other workers have obtained positive results. While it is difficult to judge negative results in this connection, it should not be forgotten that the variability in different types of tumors, animals and human beings, and most important of all, variability in potency of extracts, all are factors that should be evaluated before much significance is attached to negative results. The activity of hormone preparations can easily be destroyed if the details in their preparation are not followed very closely.

AUTHORS' STUDIES OF SYMPATHETIC NERVOUS SYSTEM: THE INFLUENCE OF THAT SYSTEM ON THE DISTRIBUTION OF THE ACTIVE PRINCIPLES OF SUPRARENAL GLANDS

Our studies of the sympathetic nervous system have demonstrated what an important part this system plays upon the innervation of the suprarenal cortical cells, influencing the distribution to the general system from the suprarenal gland, of this active principle, or hormone.

The metabolism of the cells of the entire body, and the biochemical change which actually takes place, not only in the normal cell, from day to day, but the cell that is passing through a transitional stage into that stage which we choose to term a malignant one, are of paramount importance. A study along these lines will be reported later.

REACTION OF ACTIVE PRINCIPLE OF SUPRARENAL GLANDS ON CELLS OF DIFFERENT CANCER TYPES

The relationship between the type of malignancy and the reaction of this active principle upon malignant tissue, is an interesting study. In studies in our laboratories and clinics, we have observed that cells constituting the high grade malignancy are more easily affected by small doses of the extract than the cells constituting the low grade malignancy, even though larger doses are given.

LIPOID METABOLISM IN RELATION TO MALIGNANT GROWTHS

Evidence has been presented which caused us to believe that there might be some relationship between the sterol or lipoid metabolism and malignant growths. Together with the loss of weight, loss of appetite, general run-down condition and acidosis, associated with all malignancies, we found there was an increase in the amount of cholesterol in the circulation of the blood. It has been shown by other investigators that there is a definite link between the adrenal gland and the action of cholesterol in the body, and that the adrenal gland acts as a storehouse for the cholesterol esters. A line of investigation was then instituted to determine the effect of the extract on the blood cholesterol of normal animals.

Rabbits were selected for this particular experiment and it was found that our extract caused a fall of the total blood cholesterol of about 12 per cent, while the maximum drop was reached about sixteen hours after the injection of the extract.

This observation was considered of great importance, in view of the work of Cook of the Cancer Free Hospital in London, particularly due to the fact that deoxycholic and cholic acid, both by-products of cholesterol, under laboratory conditions comparable to the metabolic processes of the human body are transformed into methylcholanthrene, which is considered the most potent carcinogenic agent we have.

IMPORTANCE OF THE INDIRECT CONTROL OF CARCINOGENIC SUBSTANCE OUTPUT BY SUPRARENAL CORTEX PRINCIPLES

The proof of the indirect control of the output of this carcinogenic substance by the stabilizing or governing chemical action of the suprarenal cortex—no doubt, in concert with other pertinent endocrines—will furnish the connecting link in the explanation of the cause of malignancy; thus substantiating our original hypothesis that cancer is constitutional.

BEARD'S BIOCHEMICAL STUDIES OF AUTHORS' AQUEOUS EXTRACTS OF THE SUPRARENAL GLAND

Beard, of the Louisiana State University, in his biochemical study and analysis of our extract, has isolated a compound in crystalline form, which work will be reported and published at an early date.

INFLUENCE OF CORTICAL SUBSTANCE EXTRACT ON ADDISON'S DISEASE

We have also produced in our laboratories another potent aqueous extract from the cortical substance, which has been demonstrated in cases of Addison's disease, at the Southern Pacific General Hospital. This extract differs from our original extract, and its bioassay shows it to be more potent than any comparable extract now in use, for treatment of Addison's disease.

Our aqueous extract is not used in Addison's disease or other allied diseases.

EXTRACTS OF OTHER INVESTIGATORS

The extract formerly used by Pfiffner and Swingle and other research workers, as you will recall, was *not* an aqueous extract, but lipoid soluble, and has been changed by them to an aqueous extract, subsequent to the publication of our research work on the development of our aqueous extract.

IMPORTANCE OF CAREFUL pH CONTROL IN MAKING SUPRARENAL EXTRACTS

Explaining the different potencies of the various extracts, reports of which have been published from time to time in scientific journals, as Beard, our biochemist, has pointed out, a very important fact should be recognized, namely, the very careful control of the hydrogen ion concentration, or the pH at all stages during the extraction and preparation of the final product.

STUDIES ON TRANSPLANTED TUMORS IN RAREFIED ATMOSPHERES

In the light of the work of Warburg of Berlin and Sundstrom of the University of California, in their studies on transplanted tumors in rarefied artificial atmospheres, comparable to those of 25,000 to 30,000 feet altitude, we are carrying on experiments in atmospheres under pressure, in apparatus designed by us, in an effort to produce a deficiency or an imbalance in the endocrine system by keeping rats in different increased atmospheric pressures, endeavoring to produce spontaneous malignancies by means of noncarcinogenic irritants. A report of this study will be given later.

VITAMINS AS ETIOLOGIC FACTORS IN MALIGNANCIES

No evidence has been obtained that the known vitamins, with one possible exception, have any definite relationship to the cause of malignancy. It is a recognized fact, according to the work of Szent Gyorgi, that vitamin C, or hexuronic acid, is found in the cortex of the suprarenal gland. Our biochemist has been unable to isolate hexuronic acid, during the process of preparing our extract, due to the fact that hexuronic acid oxidizes very easily, and is lost in the steps of the heating process required in the first part of our method for making our extract.

Schröder of Munich has demonstrated that in malignancy the hexuronic content is found to be low, and it is also found that the suprarenal cortex is the richest center of vitamin C in the human body. The pituitary also is rich in vitamin C.

A method was devised in our laboratory for using hexuronic acid in conjunction with our extract, supracorcin, in cases of malignancy, giving doses as high as three hundred milligrams per day to an individual case. Data collected to date from these cases do not show any conclusive change which could be attributed to the administration of the hexuronic acid, or vitamin C, given in addition to our extract. We are continuing its use in further research.

USE OF SUPRARENAL EXTRACTS, TO AID OTHERWISE HOPELESS CASES, IN ORDER TO MAKE THEM MORE AMENABLE TO SURGICAL PROCEDURES

Certain types of these patients previously considered poor surgical risks have been brought back to surgery by the use of our aqueous extract. As early as 1930, we observed the striking effect our extract had in preventing surgical shock, in the group of patients to whom we were giving surgical assistance, even though the operative procedure was prolonged. It was generally noted that these patients recovered from operative procedures, (such as those in which the Percy cautery was used,) much better than patients undergoing routine surgical work.

These types of cases, such as "frozen" pelvis or broken-down breasts, can frequently be brought back for successful surgical interference by the use of the extract and especially when the surgery is done with Percy cautery. This is particularly true in the far advanced patients with breast cancer.

These are the sufferers where skin flaps cannot be hopefully striven for—indeed the final results are better without them. Following the Percy technique, we have remarkably rapid granulation of the operated area, free drainage, and the lack of metastases, especially in the skin with its certain closing of the lymphatic channels.

We are convinced that the pre- and postoperative employment of the extract, as said before, prevent possible shock following extensive cautery removal of the malignant soft tissues, especially if the adrenals should become affected as they sometimes are following sunstroke.

We likewise observed in these squamous and basal cell malignancies of the skin, that the use of the extract with the cautery results in quicker healing than the use of either separately.

From our experience with these far-advanced breast cases, we are of the belief that Percy's teaching that flaps in breast amputations encourage the redevelopment of the cancer cells that are sheltered by them is correct. This is particularly true in the Halstead type of operation where the flaps furnish ideal conditions for the further culture of the malignant cells that may be left, furnishing pabulum, shelter, moisture, rest and temperature.

With the lymphatics destroyed by the cautery heat, we have not observed recurrences or metastases through what otherwise would be open lymphatic channels. In addition, since we have followed the Percy method as outlined above, we have had no recurrences in or on the cauterized surfaces.

INFLUENCE OF SUPRARENAL EXTRACTS ON TISSUE REGENERATION

Patients were sent to our clinics with a surgical, or surgical and x-ray diagnosis of gastrointestinal malignancy, but without biopsies, and were classified as ulcer or nonmalignant cases. Many of them were not amenable to dietetic treatment or operative procedure; hence, they were given our extract and the major portion of these cases showed improvement when x-rays were taken, from three to six months later, demonstrating that our extract was apparently exercising its efficacy to regenerate tissue.

OBSERVATIONS OF INFLUENCE OF SUPRARENAL EXTRACT ON SPECIAL SYMPTOMS AND SIGNS

We have observed that, with the use of our extract, the feeling of languidness and fatigue, particularly with cancer patients who belong to the aged or prematurely aged, is greatly improved.

Many malignant cases have a cachexia due to anemia, probably resulting from the absorption of toxins. The extract produces, in a majority of these patients, a disappearance of this anemia with cachexia.

We have demonstrated that liver extract will not affect the anemia of malignant cases, but rather under this therapy the anemia is increased.

We might call your attention to other symptomatic observations in these advanced patients, such as gain in weight, improvement of blood picture, and the feeling of general well-being. There is no doubt the morale of the patients and the feeling of well-being are greatly improved.

With the improvement of appetite and eating, naturally weight increases, as evidenced by the following table:

EFFECT ON WEIGHT

Net gain in weight	48.7 per cent
Net loss in weight	29.5 per cent
No change in weight	21.7 per cent

The following table, compiled from the data obtained from the charts of cases in our clinics, gives an accurate percentage as to the sense of general well-being experienced by the patients:

EFFECT ON SENSE OF WELL-BEING

Improved	75.5 per cent
Worse	12.02 per cent
No change in well-being	12.3 per cent
Doubtful as to change	.06 per cent

In some cases of blood pressure, the extract acted as a stabilizer, probably not *per se*. The action of the cortex is a vasodilator, and the medulla, a vasoconstrictor. This may explain why, in many instances, there is relief of pain in these malignant cases, as evidenced by the following table:

EFFECT ON PAIN

Pain greatly or entirely relieved	65.3 per cent
Never had any pain	12.07 per cent
Pain not relieved	21.05 per cent
Doubtful regarding relief of pain	13.02 per cent

Most of you are familiar with the disagreeable odor which accompanies a large majority of cases of inoperable carcinoma. After a few months' use of the extract, it was observed that this odor often disappeared. It was likewise observed, by rela-

Table 1.—*Class 1—Deceased Patients*

	Number of Patients
Group 1.—Patients who lived three months but less than one year	640
Group 2.—Patients who lived one year but less than two years	292
Group 3.—Patients who lived two years but less than three years	105
Group 4.—Patients who lived three years but less than four years	37
Group 5.—Patients who lived four years but less than five years	19
Group 6.—Patients who lived five years but less than six years	1
Total	1,094

tives of patients, and commented upon by them, that the characteristic repulsive odor disappeared with the use of the extract.

TYPE OF PATIENTS TREATED IN AUTHORS' CLINICS

We wish to emphasize that all patients received in our clinics in the past five years have been hopeless cases, presenting, at the time of admission to the clinics, letters from physicians, stating that all accepted methods of treatment had been used without avail, and that the prognosis was considered hopeless with present usage.

AUTHORS' FIVE YEARS' STUDIES AND GESCHICKTER CRITERIA

In making our tabulations for this five-year clinical research effort to comply with the Geschickter criteria, in studying the value of our extract, we have advisedly and definitely eliminated from our statistics, as to final results, all patients who did not receive the benefit of at least thirty injections, for the obvious reason that they were moribund at the time of arrival at our clinics, and a large percentage of these terminal cases died with intercurrent diseases.

ACTION OF SUPRARENAL EXTRACT ON MALIGNANCIES PREVIOUSLY TREATED BY ROENTGEN THERAPY

We have studied the influence of the roentgen rays upon the adrenal gland, and have observed,

Table 2.—*Class 2—Inactive (traced)—Group 2—More than one year has elapsed, but less than two years, since the patients in this group, all of whom are living, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; five cases.*

Number	Male	Female	Type	Location	Metastases Yes	Metastases No	Diagnosis Biopsy	Diagnosis X-Ray	Diagnosis Surg.
3	..	3	Adenocarcinoma	Breast	3	..	3	..	3
1	1	..	Epidermoid carcinoma	Lip	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Tongue	1	..	1	..	..

Table 3.—*Class 2—Inactive (traced)—Group 3—More than two years have elapsed, but less than three years, since the patients in this group, all of whom are living, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; ten cases.*

Number	Male	Female	Type	Location	Metastases Yes	Metastases No	Diagnosis Biopsy	Diagnosis X-Ray	Diagnosis Surg.
3	..	3	Adenocarcinoma	Breast	1	2	3	..	3
1	..	1	Epidermoid carcinoma	Cervix	..	1	1	..	..
1	1	..	Epidermoid carcinoma	Esophagus	..	1	..	1	..
1	1	..	Epidermoid carcinoma	Lip	..	1	1	..	1
1	..	1	Adenocarcinoma	Rectum	..	1	1	..	1
1	1	..	Adenocarcinoma	Stomach (pylorus)	..	1	..	1	1
1	..	1	Basal cell carcinoma	Temporal region	..	1	1	..	1
1	..	1	Adenocarcinoma	Uterus	..	1	1	..	1

Table 4.—*Class 2—Inactive (traced)—Group 4—More than three years have elapsed, but less than four years, since the patients in this group, all of whom are living, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; eight cases.*

Number	Male	Female	Type	Location	Metastases Yes	Metastases No	Diagnosis Biopsy	Diagnosis X-Ray	Diagnosis Surg.
3	..	3	Adenocarcinoma	Breast	2	1	2	..	2
2	..	2	Epidermoid carcinoma	Breast	2	..	2	1	1
1	1	..	Adenocarcinoma	Colon (sigmoid flexure)	..	1	1	..	1
1	..	1	Adenocarcinoma	Stomach (pylorus)	..	1	..	1	1
1	1	..	Adenocarcinoma	Thyroid	1	..	1	..	1

TABLE 5.—*Class 2—Inactive (traced)—Group 5—More than four years have elapsed, but less than five years, since the patients in this group, all of whom are living, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; twenty-three cases.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
1	1	..	Carcinoma	Bladder	..	1	1	..	1
3	..	3	Adenocarcinoma	Breast	1	2	3	1	3
1	..	1	Adenocarcinoma	Cervix	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Cheek	..	1	1	..	1
2	1	1	Adenocarcinoma	Colon (sigmoid flexure)	..	2	1	1	1
1	1	..	Basal cell carcinoma	Eyelid	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Face	..	1	1	..	..
1	1	..	Epidermoid carcinoma	Forehead	..	1	1	..	..
2	1	1	Basal cell carcinoma	Lip	1	1	2	..	..
1	..	1	Adenocarcinoma	Ovary	..	1	1	..	1
1	..	1	Adenocarcinoma	Rectum	..	1	1	..	..
3	2	1	Adenocarcinoma	Stomach	3	..	1	3	3
2	..	2	Adenocarcinoma	Stomach (pylorus)	..	2	..	2	1
2	..	2	Adenocarcinoma	Uterus	..	2	2	..	2
1	1	..	Basal cell carcinoma	Temple	..	1	1	..	1

TABLE 6.—*Class 2—Inactive (traced)—Group 6—More than five years have elapsed since the patients in this group, all of whom are living, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; fifty-six cases.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
1	..	1	Osteogenic sarcoma	Antrum	..	1	1	..	1
1	..	1	Melanosarcoma	Back	..	1	1	..	1
2	2	..	Carcinoma	Bladder	..	2	2	..	1
7	..	7	Adenocarcinoma	Breast	5	2	7	2	5
5	..	5	Epidermoid carcinoma	Cervix	2	3	5	..	4
1	1	..	Epidermoid carcinoma	Cheek	..	1	1	..	..
1	..	1	Adenocarcinoma	Colon	1	..	..	1	1
1	..	1	Adenocarcinoma	Colon (sigmoid flexure)	1	..	1	1	..
5	4	1	Epidermoid carcinoma	Ear	..	5	5	..	3
4	3	1	Epidermoid carcinoma	Face	1	3	3	1	1
1	1	..	Epidermoid carcinoma	Forearm	..	1	1	..	..
1	..	1	Epidermoid carcinoma	Forehead	..	1	1	..	1
1	..	1	Spindle cell fibrosarcoma	Foot	..	1	1	..	1
1	..	1	Carcinoma	Glands (cervical)—met.	1	..	1	..	1
1	..	1	Carcinoma	Glands (peritoneal)—met.	1	..	1	..	1
1	1	..	Sarcoma	Larynx	..	1	1	..	..
1	1	..	Epidermoid carcinoma	Lips	..	1	1	..	..
1	1	..	Basal cell carcinoma	Nose	..	1	1	..	..
1	..	1	Epidermoid carcinoma	Nose	..	1	1	..	1
2	..	2	Adenocarcinoma	Ovary	..	2	2	..	2
1	1	..	Sarcoma	Pubes	..	1	..	1	..
4	2	2	Adenocarcinoma	Rectum	..	4	3	..	3
1	..	1	Epidermoid carcinoma	Scalp	..	1	1	..	1
6	3	3	Adenocarcinoma	Stomach	1	5	1	5	3
1	1	..	Adenocarcinoma	Stomach (pylorus)	1	..	..	1	1
1	..	1	Sarcoma	Stomach	..	1	..	1	1
1	1	..	Embryonal carcinoma	Testicle	1	..	1	..	1
1	1	..	Epidermoid carcinoma	Tongue	..	1	1	..	1
1	..	1	Adenocarcinoma	Uterus	..	1	1	..	1

as shown by tabulations, that where the roentgen rays had been used, the potency of the extract was greatly lessened.

We wish to repeat that our experimental research effort has been upon only hopeless and dying people. The research effort of our theoretical views, as originally expounded in our report of September, 1930, can be demonstrated by these tabulations and a review of our clinical charts.

PRESENT CANCER MORTALITY FIGURES AND CURE PERCENTAGES, WHEN ALL TYPES OF CASES ARE INCLUDED

The reports made by other investigators and cancer research clinics show that cancer can be

TABLE 7.—*Class 2—Inactive (untraced)—Group 1—More than three months have elapsed, but less than one year, since the only patient in this group, who was living when last heard from, was admitted to the clinics. Method of diagnosis, metastases, location, type and sex; one case.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
1	1	..	Adenocarcinoma	Rectum	1	..	1	..	1

TABLE 8.—*Class 2—Inactive (untraced)—Group 2—More than one year has elapsed, but less than two years, since the patients in this group, all of whom were living when last heard from, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; sixteen cases.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
3	..	3	Adenocarcinoma	Breast	2	1	3	..	1
2	..	2	Epidermoid carcinoma	Cervix	..	2	2	..	1
1	..	1	Adenocarcinoma	Colon (sigmoid flexure)	..	1	1	..	1
1	1	..	Basal cell carcinoma	Larynx	1	..	1	..	1
1	1	..	Epidermoid carcinoma	Mouth	1	..	1	..	..
2	2	..	Lymphosarcoma	Neck	1	1	2	..	..
1	..	1	Epidermoid carcinoma	Nose	..	1	1	..	1
1	1	..	Adenocarcinoma	Pancreas	..	1	..	1	1
1	1	..	Adenocarcinoma	Prostate	1	..	..	1	1
1	1	..	Adenocarcinoma	Rectum	..	1	1	..	..
1	1	..	Adenocarcinoma	Stomach	1	..	1	..	1
1	..	1	Hodgkin's disease	....	..	1	1	..	..

TABLE 9.—*Class 2—Inactive (untraced)—Group 3—More than two years have elapsed, but less than three years, since the patients in this group, all of whom were living when last heard from, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; twenty-three cases.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
3	..	3	Adenocarcinoma	Breast	3	..	3	..	3
1	..	1	Adenocarcinoma	Cervix	1	..	1	..	..
1	..	1	Epidermoid carcinoma	Cervix	..	1	1	..	..
1	1	..	Adenocarcinoma	Colon	..	1	1	..	..
1	1	..	Lymphosarcoma	Elbow	1	..	1	..	..
2	2	..	Epidermoid carcinoma	Esophagus	1	1	1	..	1
1	..	1	Sarcoma	Femur	1	..	..	1	..
1	..	1	Adenocarcinoma	Glands (cervical)—met.	1	..	1	..	1
2	2	..	Epidermoid carcinoma	Lip	1	1	2	..	1
1	1	..	Carcinoma (adamantinoma)	Maxilla	1	..	1	..	1
1	1	..	Basal cell carcinoma	Nose	..	1	1	..	..
1	..	1	Adenocarcinoma	Rectum	..	1	1	..	..
1	1	..	Epidermoid carcinoma	Sinus	1	..	1	..	..
2	1	1	Epidermoid carcinoma	Skin	..	2	2	..	1
2	2	..	Adenocarcinoma	Stomach	..	2	..	2	..
1	..	1	Adenocarcinoma	Uterus	..	1	1	..	1
1	1	..	Hodgkin's disease	....	..	1	1	..	..

cured only when taken early. Statistics compiled by leading investigators show that there are now somewhere between 120,000 and 150,000 deaths yearly. With these tragic figures before us, if we are looking for results from five years' treatment of all types of cases, early and late, we cannot avoid growing pessimistic regarding the efficacy of present usage.

TABLE 10.—*Class 2—Inactive (untraced)—Group 4—More than three years have elapsed, but less than four years, since the patients in this group, all of whom were living when last heard from, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; thirty-seven cases.*

Number	Male	Female	Type	Location	Metastases Yes	Metastases No	Diagnosis Biopsy	Diagnosis X-Ray	Diagnosis Surg.
2	2	..	Carcinoma	Bladder	2	..	2	..	1
14	..	14	Adenocarcinoma	Breast	9	5	13	2	10
1	..	1	Epidermoid carcinoma	Cervix	1	..	1	..	1
1	1	..	Adenocarcinoma	Colon (sigmoid flexure)	..	1	1	..	..
1	1	..	Basal cell carcinoma	Face	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Larynx	..	1	1	..	..
1	1	..	Epidermoid carcinoma	Lip	..	1	1	..	..
2	1	1	Epidermoid carcinoma	Nose	1	1	2	..	1
1	1	..	Mixed tumor	Parotid gland	1	..	1	..	1
4	3	1	Adenocarcinoma	Rectum	..	4	4	..	1
2	2	..	Epidermoid carcinoma	Skin	2	..	1	..	1
1	1	..	Melanoma	Skin	1	..	1	..	..
2	2	..	Adenocarcinoma	Stomach	2	..	..	2	1
1	..	1	Adenocarcinoma	Stomach (pylorus)	..	1	..	1	..
2	2	..	Epidermoid carcinoma	Tongue	1	1	2	..	1
1	1	..	Epidermoid carcinoma	Tonsil	..	1	1	..	..

TABLE 11.—*Class 2—Inactive (untraced)—Group 5—More than four years have elapsed, but less than five years, since the patients in this group, all of whom were living when last heard from, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; forty-six cases.*

Number	Male	Female	Type	Location	Metastases Yes	Metastases No	Diagnosis Biopsy	Diagnosis X-Ray	Diagnosis Surg.
1	1	..	Adenocarcinoma	Antrum	1	..	1	..	1
1	1	..	Sarcoma	Antrum	..	1	..	1	1
11	..	11	Adenocarcinoma	Breast	10	1	11	2	10
4	..	4	Adenocarcinoma	Cervix	..	4	3	..	1
4	..	4	Epidermoid carcinoma	Cervix	..	4	3	..	1
1	..	1	Adenocarcinoma	Cheek	..	1	1	..	1
1	..	1	Basal cell carcinoma	Cheek	..	1	1	..	..
1	1	..	Epidermoid carcinoma	Cheek	1	..	1	..	1
1	..	1	Adenocarcinoma	Colon (ascending)	1	..	..	1	1
2	2	..	Epidermoid carcinoma	Esophagus	..	2	1	1	..
1	..	1	Hypernephroma	Kidney	1	..	1	..	1
1	1	..	Epidermoid carcinoma	Lip	..	1	1	..	1
1	..	1	Adenocarcinoma	Ovary	1	..	1	1	1
1	..	1	Basal cell carcinoma	Parotid	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Penis	..	1	1	..	1
2	2	..	Adenocarcinoma	Rectum	..	2	2	..	1
1	1	..	Epidermoid carcinoma	Scapula (skin)	1	..	1	1	1
4	3	1	Adenocarcinoma	Stomach	1	3	..	3	3
1	1	..	Adenocarcinoma	Stomach (lesser curvature)	..	1	..	1	..
2	1	1	Fibrosarcoma	Thigh	..	2	2	..	2
1	..	1	Round cell sarcoma	Umbilicus	1	..	..	1	1
1	..	1	Epidermoid carcinoma	Urethra	..	1	1	..	1
2	..	2	Adenocarcinoma	Uterus	..	2	2	..	2

DR. JAMES EWING'S REPORT TO THE 1933 INTERNATIONAL CONGRESS ON CANCER

James Ewing, one of the outstanding cancer pathologists living today, in his report before the International Congress of Cancer, held in Madrid, 1933, as quoted in its proceedings, said in his conclusion:

"The present rate of cure varies widely in different types of the disease, but it is probably safe to estimate that not more than 5 per cent of the cancer cases live more than five years, while with the major forms of the disease the eventual mortality runs between 95 and 100 per cent.

"There is no reasonable ground whatever for assuming that any new curative agent or method will be found in the near future which will alter these conditions."

In the light of Doctor Ewing's opinion, just quoted, we feel hopeful in presenting these tables and statistics, compiled, not from early cases where the opportunities to benefit the patients are immeasurably greater, but from the hopeless cases that have been treated in our clinics during the past five years.

AUTHORS' RESULTS IN HOPELESS CASES, AS NOTED IN FIVE-YEAR SURVEY

At the end of five years of painstaking work under the most trying conditions, confined exclusively to hopeless cancer patients, and having studiously complied with the requirements of the Geschickter criteria, we are greatly encouraged, and the data compiled from our records, as you will see, seem to warrant us in stating that our aqueous extract, to which we have given the name, supracorcin, has benefited as large or a larger percentage of hopeless cases as any other treatment known to us.

OBSERVATIONS OF LIVING PATIENTS AND THEIR CLINICAL RECORDS

We feel it is of essential importance to substantiate our clinical data with living evidence. In our clinic in the Medical Building, 909 Hyde Street, just across the street from the St. Francis Hospital, we have assembled from California and adjacent states, representative cases of different types of cancer referred to in this paper. Many of these patients will verify that they were admitted to our clinics over five years ago.

TABLE 12.—*Class 2—Inactive (untraced)—Group 6—More than five years have elapsed since the patients in this group, all of whom were living when last heard from, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; fifty cases.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
5	..	5	Adenocarcinoma	Breast	3	2	4	1	5
2	..	2	Epidermoid carcinoma	Cervix	1	1	1	..	1
3	2	1	Epidermoid carcinoma	Ear	2	1	3	..	1
1	1	..	Epidermoid carcinoma	Eye (orbit)	1	..	..	1	1
1	..	1	Basal cell carcinoma	Face	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Face	..	1	1	..	..
1	..	1	Fibrosarcoma	Femur	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Forehead	..	1	1	..	1
1	..	1	Epidermoid carcinoma	Hand	..	1	1	..	1
2	2	..	Epidermoid carcinoma	Larynx	..	2	2	..	1
1	1	..	Epidermoid carcinoma	Lip	..	1	1	..	..
1	..	1	Sarcoma	Maxilla	1	..	1	..	1
1	1	..	Epidermoid carcinoma	Mouth	1	..	..	1	1
1	..	1	Basal cell carcinoma	Nose	..	1	1	..	1
3	1	2	Epidermoid carcinoma	Nose	1	2	2	..	2
1	..	1	Adenocarcinoma	Ovary	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Parotid	..	1	1	..	1
3	3	..	Adenocarcinoma	Prostate	1	2	2	1	3
6	3	3	Adenocarcinoma	Rectum	2	4	6	..	3
1	1	..	Fibrosarcoma	Rectum	..	1	1	..	1
1	..	1	Sarcoma	Skull	..	1	..	1	..
6	5	1	Adenocarcinoma	Stomach	3	3	..	6	6
1	1	..	Adenocarcinoma	Stomach (greater curvature)	..	1	..	1	1
1	1	..	Lymphosarcoma	Thigh	1	..	1	..	1
1	1	..	Epidermoid carcinoma	Tongue	..	1	1	..	..
1	1	..	Embryonal carcinoma	Testicle	1	..	1	..	..
1	..	1	Adenocarcinoma	Uterus	1	..	..	1	1
1	..	1	Epidermoid carcinoma	Uterus	..	1	1	..	1

Table 13.—*Class 3—Active—Group 1—More than three months have elapsed, but less than one year, since the patients in this group, all of whom are receiving treatment at present, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; eighteen cases.*

Number	Male	Female	Type	Location	Metastases Yes	Metastases No	Diagnosis Biopsy	Diagnosis X-Ray	Diagnosis Surg.
6	..	6	Adenocarcinoma	Breast	6	..	6	5	6
1	..	1	Adenocarcinoma	Cervix	..	1	1	..	1
3	..	3	Epidermoid carcinoma	Cervix	1	2	2	1	1
1	1	..	Epidermoid carcinoma	Cheek	..	1	1	..	1
1	..	1	Epidermoid carcinoma	Forehead	..	1	1	..	1
1	..	1	Epidermoid carcinoma	Labia minor	..	1	1	..	1
1	1	..	Basal cell carcinoma	Nose	..	1	1	..	1
2	..	2	Adenocarcinoma	Stomach	..	2	..	2	1
1	..	1	Adenocarcinoma	Uterus	1	..	1	1	1
1	1	..	Hodgkin's disease	....	..	1	1	..	..

You are cordially invited and urged to step across the street, after the presentation of the clinical data, which will follow, and see these patients, talk with them, examine them, inspect their clinical records, and evaluate fully, for yourselves, the validity of the data which we have briefly outlined.

Doctor MacNevin, Director of the San Francisco Clinic, will give you every assistance during your observation of these patients.

* * *

PART II

ANALYSIS OF CLINICAL MATERIAL: WITH THIRTY-FOUR TABLES

* * *

GROUP CLASSIFICATION OF PATIENTS INCLUDED IN REPORT

The patients who have been registered in our clinics in the last five years, first, have been segregated into different classes relative to the length of time they were members and then receiving extract or being under our care, having returned home to have the extract administered to them by their own physicians, who are coöperating with us; second, those patients who have been members of our clinics and have discontinued the use of the extract; and third, those patients who have died. Five hundred and forty-eight patients presented themselves to the clinics, applying for admission, but were not admitted because of the lack of fulfillment of the requirements.

TOTAL NUMBER PATIENTS ADMITTED TO CLINICS: MINIMUM NUMBER OF TREATMENTS NECESSARY TO OBTAIN RESULTS

Since the organization of the Coffey-Humber clinics in February, 1930, 7,513 patients, suffering from malignancy of some form, have been registered for treatment. Each one of these cases fulfilled all the requirements for admission.

As has already been brought out, it has been considered necessary for patients to receive at least thirty injections of the extract before any definite or beneficial results can be expected, other than the relief of pain in many cases, after only a few injections.

SPECIAL GROUP OF PATIENTS WITH MALIGNANCIES SO FAR ADVANCED AS TO MAKE IMPOSSIBLE MINIMUM TREATMENTS REQUIRED

For this reason, those patients having been admitted to our clinics in such a critical condition

Table 14.—*Class 3—Active—Group 2—More than one year has elapsed, but less than two years, since the patients in this group, all of whom are receiving treatment at present, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; sixteen cases.*

Number	Male	Female	Type	Location	Metastases Yes	Metastases No	Diagnosis Biopsy	Diagnosis X-Ray	Diagnosis Surg.
5	..	5	Adenocarcinoma	Breast	3	2	3	..	5
1	1	..	Carcinoma	Glands (retroperitoneal)—metastatic	1	..	1	..	1
1	1	..	Epidermoid carcinoma	Nose	..	1	1	..	..
1	..	1	Adenocarcinoma	Ovary	..	1	1	..	..
3	3	..	Adenocarcinoma	Prostate	..	3	3	..	2
1	1	..	Adenocarcinoma	Rectum	..	1	1	..	1
2	2	..	Adenocarcinoma	Stomach	..	2	1	1	1
1	1	..	Teratoma	Testicle	..	1	1	..	1
1	1	..	Hodgkin's disease	....	..	1	1	..	..

are considered in a special group. In this group of 3,782 patients are placed all those whose condition was so far advanced that they succumbed from the malignancy from which they were suffering or from intercurrent diseases in spite of all our efforts to prolong life a sufficient length of time to allow them to receive at least thirty injections of the extract.

PREVIOUS X-RAY THERAPY IN THIS GROUP: RELIEF OF PAIN FROM USE OF EXTRACT

Naturally, according to our theory, if a deficiency of the adrenal cortices is further increased

Table 15.—*Class 3—Active—Group 3—More than two years have elapsed, but less than three years, since the patients in this group, all of whom are receiving treatment at present, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; fourteen cases.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
4	..	4	Adenocarcinoma	Breast	2	2	3	..	3
3	..	3	Epidermoid carcinoma	Cervix	..	3	3	..	1
1	..	1	Adenocarcinoma	Colon	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Ear	..	1	1	..	1
1	1	..	Epidermoid carcinoma	Hand	..	1	1	..	1
1	..	1	Adenocarcinoma	Ovary	..	1	1	..	1
1	..	1	Adenocarcinoma	Rectum	..	1	1	..	1
1	..	1	Adenocarcinoma	Stomach	..	1	..	1	..
1	..	1	Basal cell carcinoma	Temporal region	..	1	1	..	1

Table 16.—*Class 3—Active—Group 4—More than three years have elapsed, but less than four years, since the patients in this group, all of whom are receiving treatment at present, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; sixteen cases.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
8	..	8	Adenocarcinoma	Breast	5	3	8	2	8
1	..	1	Epidermoid carcinoma	Cervix	..	1	1	..	1
1	..	1	Adenocarcinoma	Colon	1	..	1	1	..
1	..	1	Lymphosarcoma	Caecum	..	1	1	..	1
1	..	1	Spindle cell sarcoma	Leg	..	1	1	..	1
1	..	1	Carcinoma	Parotid	..	1	1	1	1
1	1	..	Fibrosarcoma	Shoulder	..	1	1	..	1
1	1	..	Basal cell carcinoma	Skin	..	1	1	..	1
1	..	1	Adenocarcinoma	Uterus	..	1	1	..	1

Table 17.—*Class 3—Active—Group 5—More than four years have elapsed, but less than five years, since the patients in this group, all of whom are receiving treatment at present, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; twenty-two cases.*

Number	Male	Female	Type	Location	Metastases		Diagnosis		
					Yes	No	Biopsy	X-Ray	Surg.
2	..	2	Carcinoma	Bladder	..	2	2	..	2
7	..	7	Adenocarcinoma	Breast	7	..	4	5	4
2	..	2	Epidermoid carcinoma	Cervix	..	2	2	..	1
1	1	..	Adenocarcinoma	Colon	1	..	1	..	1
1	..	1	Sarcoma	Ovary	1	..	1	..	1
1	..	1	Endothelioma	Parotid	..	1	1	..	1
1	..	1	Giant cell sarcoma	Scapula	1	..	..	1	..
2	1	1	Epidermoid carcinoma	Skin	..	2	2	..	2
2	1	1	Adenocarcinoma	Stomach	..	2	..	1	1
1	..	1	Adenocarcinoma	Uterus	..	1	1	..	1
1	..	1	Sarcoma	Uterus	..	1	1	..	1
1	1	..	Hodgkin's disease	....	..	1	1	..	1

TABLE 18.—*Class 3—Active—Group 6—More than five years have elapsed since the patients in this group, all of whom are receiving treatment at present, were admitted to the clinics. Method of diagnosis, metastases, location, type and sex; fifty-one cases.*

Number	Male	Female	Type	Location	Metastases Yes	Metastases No	Diagnosis Biopsy	Diagnosis X-Ray	Diagnosis Surg.
1	..	1	Adenocarcinoma	Abdomen	1	..	1	..	1
1	..	1	Sarcoma	Antrum	..	1	..	1	..
2	2	..	Carcinoma	Bladder	..	2	2	..	1
11	..	11	Adenocarcinoma	Breast	8	3	10	3	8
7	..	7	Epidermoid carcinoma	Cervix	2	5	5	..	5
1	1	..	Adenocarcinoma	Colon (ascending)	..	1	1	1	..
1	..	1	Sarcoma	Colon (descending)	..	1	1	..	1
1	1	..	Basal cell carcinoma	Eyelid	..	1	..	..	1
1	..	1	Epidermoid carcinoma	Foot	..	1	1	..	1
1	..	1	Lymphosarcoma	Glands (cervical)	1	..	1	..	1
1	..	1	Basal cell carcinoma	Hand	1	..	1	..	1
1	1	..	Giant cell sarcoma	Mandible	..	1	..	1	..
1	1	..	Basal cell carcinoma	Nose	1	..	1	1	1
2	..	2	Adenocarcinoma	Ovary	1	1	1	..	2
1	..	1	Papillary cystadenocarcinoma	Ovary	1	..	1	..	1
1	..	1	Angioendothelioma	Parotid	..	1	1	..	1
1	..	1	Adenocarcinoma	Rectum	..	1	1	..	..
1	..	1	Epidermoid carcinoma	Sinus (frontal)	..	1	..	1	1
1	1	..	Alveolar carcinoma	Skin	..	1	1	..	..
5	5	..	Adenocarcinoma	Stomach	1	4	..	4	4
1	..	1	Adenocarcinoma	Stomach (pylorus)	1	..	..	1	..
1	1	..	Embryonal carcinoma	Testicle	..	1	1	..	1
1	..	1	Mixed cell sarcoma	Thigh	1	..	1	1	1
5	..	5	Adenocarcinoma	Uterus	3	2	3	4	5
1	1	..	Hodgkin's disease	---------------	..	1	1	..	..

TABLE 19.—*Class 4—Prophylactic—Inactive Traced—This table is composed of patients having had the primary area of involvement totally removed, and, at the time of admission to the clinics, showing no evidence of metastases or recurrence. These patients, at the time of compiling this report, are still free from any clinical evidence of malignancy. Sixteen cases.*

				Metastases		Length of Time Since Area of Involvement Was Totally Removed	
Male	Female	Type	Location	Yes	No	Years	Months
..	1	Adenocarcinoma	Breast	1	..	5	7
..	1	Adenocarcinoma	Breast	1	..	5	3
..	1	Adenocarcinoma	Breast	1	..	7	..
..	1	Adenocarcinoma	Breast	1	..	6	..
..	1	Adenocarcinoma	Breast	1	..	5	11
..	1	Adenocarcinoma	Breast	..	1	5	6
..	1	Adenocarcinoma	Breast	..	1	4	7
..	1	Adenocarcinoma	Breast	1	..	5	..
..	1	Adenocarcinoma	Breast	..	1	4	11
..	1	Adenocarcinoma	Breast	..	1	5	1
..	1	Adenocarcinoma	Breast	..	1	5	5
..	1	Adenocarcinoma	Fallopian tube	..	1	4	9
..	1	Epidermoid carcinoma	Forehead	..	1	2	10
..	1	Fibrosarcoma	Leg	..	1	5	4
..	1	Epidermoid carcinoma	Uterus	..	1	3	7
..	1	Epidermoid carcinoma	Uterus	..	1	5	2

TABLE 20.—*Class 4—Prophylactic—Inactive (untraced)—This table is composed of patients having had the primary area of involvement totally removed, and, at the time of admission to the clinics, showing no evidence of metastases or recurrence. These patients were living when last heard from. Eleven cases.*

				Metastases		Length of Time Since Area of Involvement Was Totally Removed	
Male	Female	Type	Location	Yes	No	Years	Months
..	1	Adenocarcinoma	Breast	1	..	4	..
..	1	Adenocarcinoma	Breast	..	1	6	8
..	1	Adenocarcinoma	Breast	..	1	1	7
..	1	Adenocarcinoma	Breast	..	1	5	6
..	1	Adenocarcinoma	Breast	..	1	3	10
..	1	Adenocarcinoma	Breast	..	1	5	8
..	1	Adenocarcinoma	Breast	..	1	3	4
..	1	Basal cell carcinoma	Eye (inner canthus)	..	1	4	11
1	..	Epidermoid carcinoma	Lip	..	1	1	1
1	..	Embryonal carcinoma	Testicle	..	1	5	7
..	1	Epidermoid carcinoma	Uterus	..	1	4	11

by a destructive influence of the roentgen rays, the likelihood of an early effect of this extract upon these patients will be greatly lessened, and the possibility of their succumbing either from a malignancy or from intercurrent diseases would also be increased.

The one beneficial result which we feel sure was obtained in this group of cases was the relief of pain, thus making the last days of life more comfortable for these poor unfortunates.

CLASSIFICATION OF PATIENTS RECEIVING MORE THAN THIRTY TREATMENTS

Those patients who were admitted to the clinics who received over thirty injections have been segregated into three classes, with the exception of those falling into special classes, such as prophylactic and ulcer cases. These three classes (deceased, inactive—traced and untraced—and active) were again divided into six groups, ac-

TABLE 21.—*Class 4—Prophylactic—Active—This table is composed of patients having had the primary area of involvement totally removed, and, at the time of admission to the clinics, showing no evidence of metastases or recurrence. These patients at the time of compiling this report are still receiving extract (supracorcin) and are still free from any clinical evidence of malignancy. Twenty cases.*

				Metastases		Length of Time Since Area of Involvement Was Totally Removed	
Male	Female	Type	Loaction	Yes	No	Years	Months
..	1	Adenocarcinoma	Breast	1	..	1	11
..	1	Adenocarcinoma	Breast	..	1	2	3
..	1	Adenocarcinoma	Breast	1	..	3	7
..	1	Adenocarcinoma	Breast	1	..	..	10
..	1	Adenocarcinoma	Breast	1	..	1	1
..	1	Adenocarcinoma	Breast	..	1	5	6
..	1	Adenocarcinoma	Breast	1	..	2	6
..	1	Adenocarcinoma	Breast	..	1	4	3
..	1	Adenocarcinoma	Breast	1	..	3	7
..	1	Adenocarcinoma	Breast	..	1	5	10
1	..	Adenocarcinoma	Breast	..	1	3	5
..	1	Schimmelbusch's disease	Breast	..	1	2	..
..	1	Epidermoid carcinoma	Breast	..	1	5	6
..	1	Epidermoid carcinoma	Cervix	..	1	5	9
1	..	Epidermoid carcinoma	Gum	..	1	1	10
1	..	Epidermoid carcinoma	Lip	..	1	2	..
..	1	Adenocarcinoma	Ovaries	..	1	4	11
..	1	Adenocarcinoma	Ovary	..	1	3	..
..	1	Adenocarcinoma	Uterus	..	1	3	5
..	1	Adenocarcinoma	Uterus	..	1	3	10

cording to the number of years they lived since being admitted to the clinics.

CLASS I. ON PATIENTS WHO DIED

This class includes those patients who expired after receiving more than thirty injections.

Although these deceased patients are counted as a whole in our malignant group, many of them died with intercurrent diseases, as previously stated. (See Table 1.)

CLASS II. ON PATIENTS WHO DISCONTINUED TREATMENT: SUBGROUPS OF TRACED AND UNTRACED PATIENTS

This group consists of patients who voluntarily discontinued the use of the extract after receiving more than thirty injections. One of the most difficult problems has been to cause the patients to realize that they should continue the use of the extract. It has not been possible to determine how much influence the extract has had upon regenerating the cortical cells and restoring their normal function, although there have been enough patients who have been cleared of malignancy, discontinued the extract, and had recurrence, to establish to a fair degree of certainty that, in these cases, the function of the adrenal cortex has been sufficiently impaired to cause the return of the malignancy, when such a deficiency of the active principle is not supplied therapeutically.

On the other hand, in other patients, it is very probable that the function of the adrenal cortex is not impaired sufficiently to create a deficiency great enough to cause a recurrence unless some added insult to the tissue, such as irritation or trauma, occurs. Many of these patients have received a sufficient amount of the extract to make up for the deficiency and are able to carry on without any change one way or the other.

For this reason, we have been unable to state positively to these patients that they will have a recurrence if they discontinue the use of the extract. Therefore, many patients, because of great improvement in their malignancy, and their general well-being and relief of pain, et cetera, have felt they could afford to discontinue taking the extract for at least a while, and have become inactive in the clinics.

One of the greatest problems of the record department of the clinics has

TABLE 22.—*Class 5—Ulcer.—This table includes those patients diagnosed by x-ray as having definite ulcers, and those diagnosed as having malignancies of the stomach, although there was some question, at one time or another, in the histories, as to whether or not the existing condition was an ulcer. Ten cases.*

Male	Female	Type	Location	Method of Diagnosis	Pain Relieved Yes	Pain Relieved No	Weight Gain	Weight Loss	Well-being Improved Yes	Well-being Improved No	Apparently Cured. Determined by	Improved	Unimproved	Remarks
x	...	Carcinoma	Stomach	X-ray Surgery	x	...	...	x	...	x	....	x	...	....
x	...	Carcinoma	Stomach	Surgery	x	...	x	...	x	...	Clinically	...	...	....
x	...	Carcinoma	Stomach	X-ray	x	...	x	...	x	...	X-ray	...	...	71 years old when discontinued. Had had two strokes.
...	x	Carcinoma	Stomach	X-ray Clinical	x	...	x	...	x	...	Clinically	...	...	....
x	...	Carcinoma	Stomach—pyloric end.	X-ray	x	...	x	...	x	...	Clinically	...	...	....
...	x	Carcinoma	Stomach—lesser curvature	X-ray	x	...	x	...	x	...	Clinically	...	...	....
x	...	Ulcer—probable carcinoma	Duodenum	X-ray	x	...	x	...	x	...	....	x	...	....
x	...	Ulcer	Duodenum	X-ray	x	...	x	...	x	...	Clinically	...	...	....
...	x	Ulcer	Duodenum	X-ray	x	...	x	...	x	...	Surgery	...	...	....
x	...	Ulcer	Stomach	X-ray Clinical	x	...	x	...	x	...	X-ray	...	...	....

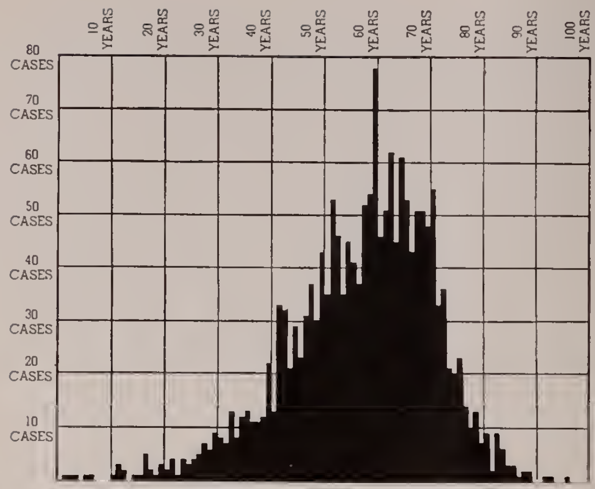

Chart 1.—Age incidence of malignancy in 2,425 patients (male).

been the following up or tracing of these patients who have discontinued; and, although the work has been diligently carried on, there is a large group of patients that has not been heard from for some time, although, when information was last obtained from them, they were living, many of them still clear of any evidence of malignancy, others working, but still showing definite evidence of malignancy, and others in the same condition as when they left the clinics. For this reason, the groups in the discontinued class have been divided into traced and untraced. Those in the traced group include those patients as of February 1 or any later date, when they may have been heard from. (See tables 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12.)

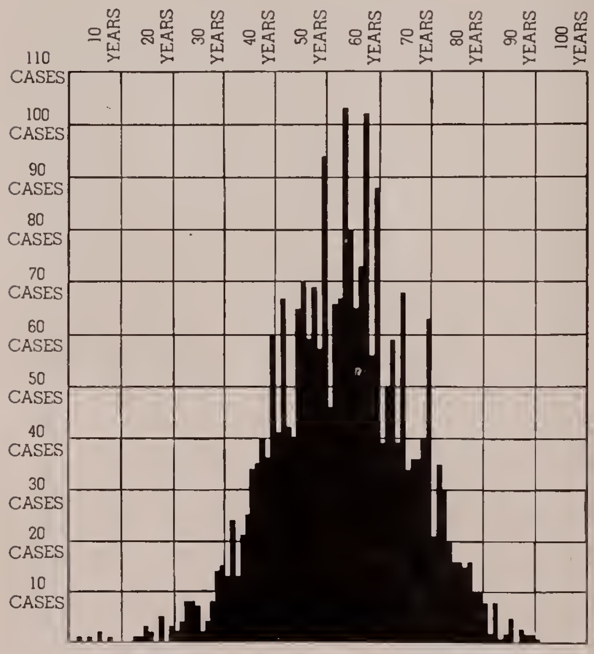

Chart 3.—Age incidence of malignancy in 3,121 patients (female).

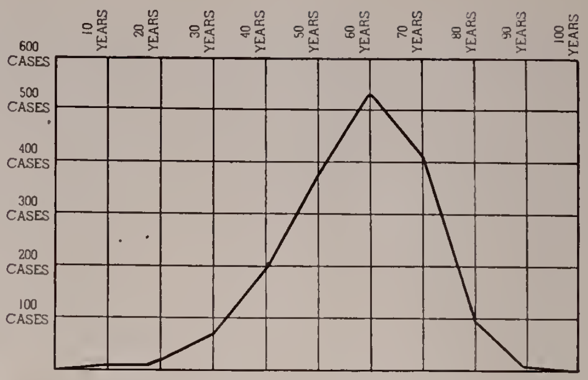

Chart 2.—Age incidence of malignancy in 2,425 patients (male).

CLASS III. ON PATIENTS STILL UNDER TREATMENT: IN CLINICS OR IN THEIR HOMES

This class consists entirely of patients who have continually received the extract since entering the clinics, although some of this number are receiving the extract at home from their own physicians who are coöperating with us in this research work. (See tables 13, 14, 15, 16, 17, and 18.)

CLASS IV. ON PATIENTS PREVIOUSLY TREATED BY SURGICAL METHODS: RECEIVING LATER TREATMENT WITH SUPRARENAL EXTRACT, FOR PROPHYLACTIC PURPOSES

This class is composed of those patients who have had positive diagnosis of malignancy by biopsy with surgical intervention and total removal of the malignancy, and are receiving treatment as a prophylactic measure against recurrence.

In this class are patients with early malignancy of the breast, evidenced in many instances only by a small malignant nodule, and where complete radical operation by surgical measures has been performed.

It is interesting, also, to note in this class, the number of breast cases that had metastatic involvement of the axillary glands at the time of radical surgery. (See tables 19, 20, and 21.)

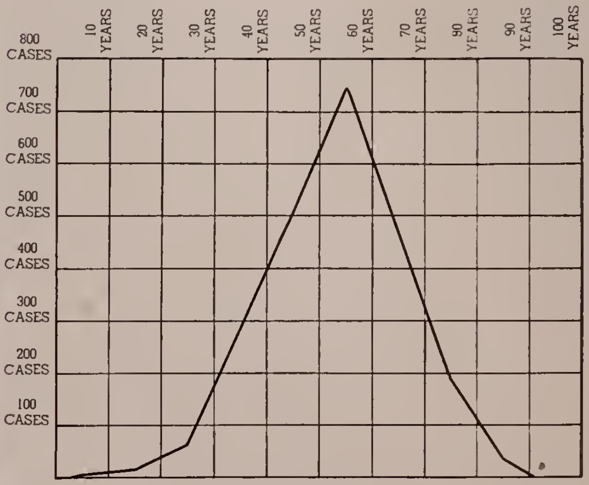

Chart 4.—Age incidence of malignancy in 3,121 patients (female).

TABLE 23.—*Age.—Incidence of Malignancy in 5,546 Patients*

Age	Male	Female	Total
1 to 5 years	3	2	5
5 to 10 years	3	4	7
10 to 15 years	7	3	10
15 to 20 years	13	14	27
20 to 25 years	20	33	53
25 to 30 years	38	44	82
30 to 35 years	56	111	167
35 to 40 years	91	226	317
40 to 45 years	181	326	507
45 to 50 years	219	423	642
50 to 55 years	299	498	797
55 to 60 years	333	479	812
60 to 65 years	398	347	745
65 to 70 years	360	270	630
70 to 75 years	238	202	440
75 to 80 years	106	90	196
80 to 85 years	42	33	75
85 to 90 years	14	13	27
90 to 95 years	3	3	6
95 to 100 years	1	..	1

Average age: 41.4 years.

CLASS V. ON PATIENTS WITH GASTRIC ULCERS AND MALIGNANCIES

This class includes those patients who were diagnosed as having gastric cancers, and others who were diagnosed as having ulcers not amenable to treatment. The table includes those cases diagnosed by x-ray as definite ulcers and those diagnosed as malignancies of the stomach, although there was some question, at one time or another, in the histories, as to whether or not an existing condition was an ulcer or a cancer.

TABLE 24.—*Metastases in Carcinoma of the Breast—Anatomical Distribution in 505 Patients**

	Number of Cases	Per Cent
Metastases from breast to lungs	125	25.0
Metastases from breast to ribs, sternum, manubrium	54	10.8
Metastases from breast to vertebrae	37	7.4
Metastases from breast to pelvic bones	31	6.2
Metastases from breast to long bones	28	5.6
Metastases from breast to axillary glands	301	60.2
Metastases from breast to clavicular glands	100	20.0
Metastases from breast to cervical glands	51	10.2
Metastases from breast to opposite breast	55	11.0

* The majority of patients had multiple metatases and, therefore, appear in one or more groups. Twenty patients with metastases from the breast to other locations, mostly visceral, are not included.

TABLE 25.—*Summary of Data Regarding Metastases in All Classes: 1,506 Cases*

	Metastases	
	Yes	No
Class 1.—Deceased	575	519
Class 2.—Inactive (traced and untraced)	106	169
Class 3.—Active (receiving extract at the present time)	52	85
Total	733	773

TABLE 26.—*Surgical Treatment Prior to Admission to the Clinics; Series of 1,506 Cases*

	Number of Patients Who Had Received Surgical Treatment
Class 1.—Deceased	702
Class 2.—Inactive (traced and untraced)	189
Class 3.—Active (receiving extract at the present time)	98
Total	989

One patient reported in this class will illustrate our reason for making this special classification. The patient in question was a man (case number 774), who was diagnosed by surgery in 1928 as having an ulcer of the stomach; in 1931 a diagnosis of probable carcinoma was made by the Veterans Bureau of the United States Army; and in 1931, x-rays of the lung were reported as showing metastatic growth in the lung. Even in view of the fact that there was an x-ray diagnosis in this case, it is still left in the ulcer group.

TABLE 27.—*Radium Therapy Prior to Admission to the Clinics; Series of 1,506 Cases*

	Number of Patients Who Had Received Radium Therapy
Class 1.—Deceased	215
Class 2.—Inactive (traced and untraced)	72
Class 3.—Active (receiving extract at the present time)	28
Total	315

Another patient in this group, a woman (case number 785), diagnosed by x-ray as having ulcer of the duodenum in 1933, in one of the well-known hospitals of the United States, had failed to respond to medical treatment over a period of six months. She was then placed upon the extract and the ulcer symptoms disappeared after three months' treatment. Later she developed

TABLE 28.—*X-ray Therapy Prior to Admission to the Clinics; Series of 1,506 Cases*

	Number of Patients Who Had Received X-ray Therapy
Class 1.—Deceased	349
Class 2.—Inactive (traced and untraced)	92
Class 3.—Active (receiving extract at the present time)	44
Total	485

Table 29.—*Incidence of Recurrence in Relation to Surgery and Postoperative X-ray Treatment: 439 Cases*

Number	Male	Female	Location	No X-ray Treatment	Postoperative X-ray Treatment	Recurrence	Metastases
105	..	105	Breast	x	..	Yes	......
93	1	92	Breast	..	x	Yes	......
111	1	110	Breast	x	..	No	Yes
50	..	50	Breast	..	x	No	Yes
9	..	9	Cervix	x	..	Yes	......
1	..	1	Cervix	..	x	Yes	......
15	..	15	Cervix	x	..	No	Yes
6	..	6	Cervix	..	x	No	Yes
5	..	5	Ovary	x	..	Yes	......
2	..	2	Ovary	..	x	Yes	......
6	..	6	Ovary	x	..	No	Yes
4	..	4	Rectum	x	..	Yes	......
14	14	..	Rectum	x	..	No	Yes
3	..	3	Rectum	..	x	No	Yes
5	..	5	Uterus	x	..	Yes	......
1	..	1	Uterus	..	x	Yes	......
6	..	6	Uterus	x	..	Yes	......
3	..	3	Uterus	..	x	No	Yes

symptoms which indicated a cholecystitis, but in view of her previous ulcer history, the question arose as to whether or not it was a return of her ulcer. An x-ray examination failed to reveal any definite ulcer. An exploratory operation was done and an inflamed gall-bladder was found, which was removed. The scar of an old healed ulcerated area was also found. (See Table 22.)

Table 30.—*Effect of Supracorcin on Sense of Well-Being*

	Per Cent
Improved	75.5
Worse	12.02
No change	12.3
Doubtful	.06

SUPRARENAL GLAND STRUCTURE AND FUNCTION IN DIFFERENT AGE PERIODS: IN RELATION TO MALIGNANCIES

The question of age is a very important one in many respects, when considering the problem of the cause of malignancy. Embryologically, cortical cells of the adrenal glands develop much earlier than the medullary cells, and, as far as we can determine, are very active at birth. The adrenal glands develop and remain active, to all intents and purposes, during the early portion of an individual's life, and it is only after forty years or more that atrophy of the cortices of the adrenals is found. Very rarely do we find atrophy of the adrenal cortices in children or individuals before they have reached middle age. As the individual approaches middle age, the incidence of cancer increases and naturally with our theory, we assume that, as an individual grows older, the atrophy increases, with a subsequent dysfunction of the adrenal cortices. With the increase in this dysfunction, less of this active principle, or stabilizer of tissue growth, is produced and given to the system. Therefore, we assume that the chances of developing a malignancy are increased because of the lack of this protective agent. (See Table 23, and charts 1, 2, 3, and 4.)

In passing, a note can be made of a press dispatch which may be of interest even though no means of confirming its truth is at hand. It was to the effect that in Greece, in a little village near Athens, the inhabitants use the entrails of sheep mixed with their food. There was no record of any death or case of cancer in this village. The supposition is that they were protected by a hormone, from the entrails of sheep, which produces an immunity.

Table 31.—*Effect of Supracorcin on Pain*

	Per Cent
Pain greatly or entirely relieved	65.3
Never had any pain	12.07
Pain not relieved	21.5
Doubtful regarding relief of pain	13.02

Table 32.—*Effect of Supracorcin on Weight*

	Per Cent
Gained	48.7
Lost	29.5
No change	21.7

TABLE 33.—*General Summary*

						Living			
		Deceased		Living (Untraced)		Traced or in Clinics		Clinically Clear	
Years Since Admission to the Clinics	Number of Patients	Number of Patients	Per Cent	Number of Patients	Per Cent	Number of Patients	Per Cent	Number of Patients	Per Cent
5	1,040	883	84.90	50	5.05	108	10.38	52	5.
4	236	145	61.44	46	19.49	45	19.06	....	..
3	139	78	56.11	37	26.61	24	17.26	....	..
2	87	40	45.97	23	26.43	24	27.58	....	..

METASTASIS IN MALIGNANCIES

Metastasis is a transfer of the malignancy to, or a secondary involvement of, a portion of the body foreign to the original area of involvement. It has been of particular interest to note the metastases which have taken place from the breast to the bone and from the breast to the lungs.

The table on metastases which is being shown is a summary of a detailed table which time will not permit us to show. (See Table 24.)

Table 25 gives a summary relative to whether or not metastasis was present in all patients who entered the clinics and received over thirty injections.

The following observation is worth mentioning, as this type of case is rare and only one was found in our entire 7,513 cases. The particular case in question was diagnosed hypernephroma of the thyroid gland, metastatic.

ON 989 CANCER PATIENTS, PREVIOUSLY TREATED BY SURGICAL METHODS

Table 26 gives a summary of patients in all classes (a series of 1,506 cases), in which group, 989 patients received surgical treatment prior to admission to the clinics.

ON 315 CANCER PATIENTS, PREVIOUSLY TREATED BY RADIUM THERAPY

The use of radium in malignancies is of particular interest, especially in certain types of cases. Table 27 gives a summary in a series of 1,506 patients, in which group, prior to admission to the clinics, 315 patients received radium therapy.

ON 485 CANCER PATIENTS, PREVIOUSLY TREATED BY ROENTGEN THERAPY

The influence of x-ray therapy upon these patients prior to their admission to the clinics, and its relation to the action of the extract, were considered important. Whether or not the roentgen rays have a definite destructive influence upon the adrenal cortices which would consequently cause a deficiency in the output of the adrenal extract could only be determined, if at all, we felt, by data compiled from those patients having received x-ray treatment, together with information obtained in the work on sheep, as previously related.

The beneficial action of x-ray in the treatment of malignancies must also be taken into consideration. (See Table 28.)

ON RECURRENCES OF MALIGNANCIES, AFTER PRESUMABLE ROENTGEN RAY THERAPY

The influence of postoperative x-ray upon recurrence is another factor which should be taken into consideration. Recurrence, in the strictest sense of the word, means where there has been total eradication of the malignancy, and a second appearance of the malignancy, at the site of operation. (See Table 29.)

ON EFFECTS OF SUPRARENAL EXTRACT ON PAIN, WEIGHT AND FEELING OF WELL-BEING

It has been gratifying to note the increase in weight, relief of pain and general improvement in well-being in these patients. Our observations regarding these facts have been consistent during the past five years, as will be evidenced by the following tables. (See tables 30, 31, and 32.)

PERCENTAGE OF CLINICALLY CLEAR PATIENTS AT END OF FIVE YEARS

Since the reading of this paper, two more patients in the "untraced" five-year group have been heard from, which will place them in the "traced," or clinically clear, five-year group, changing the total number of patients (see Table 33) in the traced or in the clinic group from 108 to 110, and the percentage from 10.38 per cent to 10.57 per cent. This also changes the number of patients of the five-year clinically clear group from 52 to 54 cases and the percentage from 5 per cent to 5.1 per cent.

FINAL SUMMARY OF PATIENTS UNDER TREATMENT FOR FIVE YEARS: (1) OF PATIENTS STILL LIVING AT END OF FIVE YEARS; AND (2) OF PATIENTS STILL LIVING AND CLEAR OF CLINICAL MANIFESTATIONS OF CANCER

The viewpoints of the authors concerning the constitutional nature of cancer are outlined.

Authors' reasons for believing that an aqueous

TABLE 34.—*Summary for Patients Who Started Treatment in 1930*

Total number of patients in Classes 1, 2, 3..............1,040

	Number of Patients	Per Cent
Total number of patients living five years after being admitted to the clinics..................	110	10.57
Total number of patients living five years after being admitted to the clinics, who are clinically clear..............................	54	5.1

solution of the cortex of the suprarenal glands (supracorcin), made according to their method, as being of value as a therapeutic agent in the treatment of cancer, are indicated.

Observations on a total of 8,061 patients suffering from terminal or inoperable cancer, who applied for treatment during the last five years, are given.

The results obtained in the treatment of 1,040 patients suffering from advanced cancer, who were referred by attending physicians to the authors' clinics, and each of whom received at least thirty treatments with the aqueous extract of the cortex of the suprarenal gland, are presented.

IN CONCLUSION

In California and Western Medicine (September, 1930, page 640) was printed the paper read by the authors, on August 23, 1930, before the Pacific Association of Railway Surgeons; that paper being partly based on the subject matter presented previously, on January 6, 1930, to the San Francisco Pathological Society.

Since 1930, five years have elapsed (the time period set in the Geschickter criteria as being necessary before conclusions could be properly drawn as to value of therapeutic methods intended to alleviate cancer).

In the two clinics maintained by the authors, at San Francisco and Los Angeles, a total of 8,061 patients with advanced cancer applied for registration and treatment; 548 of these not being registered, because they failed to comply with the requirements.

The great majority of these patients were referred to the clinics by their attending physicians of California and other states, and in each instance an earnest endeavor was made to use all methods necessary for accurate diagnosis. Clinical histories, by both the attending physicians previously in charge and of the clinics, were carefully kept, and are in the files, in well tabulated and easily accessible form, for inspection by responsible parties.*

In a total of 1,040 patients, each of whom received thirty or more injections with the authors' aqueous extract, there were 108 patients or 10.38 per cent, who are still living at the end of five years; and of this latter number, 52 patients, or 5 per cent, are clinically clear of cancer involvement at the end of five years.

(Note.—Since writing this paper, the four-year group referred to in Table 33, has become a five-year group; and of this group, consisting of 236 patients, 45 patients, or 19.6 per cent, are living. The checks on clinical clearness have not yet been completed for this group.)

Table 33 shows, year by year, a decreasing number of patients who have received at least thirty treatments with the authors' aqueous solution. This is due to the fact that very few hopelessly advanced patients are now being sent to the clinics, and also because the extract is now being furnished to licensed physicians of the Union; so that at the time of this writing, otherwise inoperable cancer patients (clinical histories having been previously transmitted to us by their medical attendants) are now being treated in thirty-six different states by their licensed physicians, with aqueous extract supplied by the authors.

Dr. James Ewing, of the Cancer Memorial Hospital of New York, in his report to the International Congress of Cancer, held in Madrid, 1933, as quoted elsewhere, declared that "it is probably safe to state that not more than 5 per cent of the cancer cases live more than five years."

In the light of Doctor Ewing's statement, it should be of interest to note that, in the analysis of the authors' total of 1,040 patients with inoperable cancer, and under observation for five years, a total of 108 patients, or 10.38 per cent, are living at the end of five years. (Since the above report was read at the St. Francis Hospital meeting of the American College of Surgeons session, in San Francisco, October 28 to November 1, 1935, two patients, still living, who are in this five-year group, have reported, making the total of living patients in this first five-year group 110, a percentage of 10.57 per cent of living patients, of which number 54, or 5.1 per cent are clear of symptoms.)

As previously stated, the complete clinical records of all patients under observation in the last five years are open to inspection and study by responsible parties.†

The authors submit that their studies, with the results obtained during the last five years, compare favorably with any in the literature; especially since they are based on observations of results in the massive amount of clinical material of advanced type that was under observation. It is needless to add that they are encouraged to go forward with their work.

Coffey-Humber Clinic, 909 Hyde Street.

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* Concerning the manner in which the records have been kept in the clinics, it may be permissible to quote from a letter received from Frederick L. Hoffman, well-known authority on vital statistics, long connected with the Prudential Insurance Company in New York, and in later years with the Cancer Library and Cancer Research Fund of the University of Pennsylvania, Graduate School of Medicine, Medico-Chirurgical College, who wrote:

"The condition of your records is so admirable that I feel more than ever a full analysis of your experience would make an extremely valuable contribution to cancer knowledge. My daughter gets through with our study of the cases at the Huntington Memorial Hospital some time in March, and I have been wondering if you could not employ her for two or three months to abstract the essential facts of your records to enable me to present a full analysis of your experience from the beginning to date. I know of no records kept in such admirable condition as yours or any that would justify a more thorough study in view of the apparently exceedingly satisfactory results in otherwise hopeless cases."

† At the time this paper was read at the St. Francis Hospital meeting of the session of the American College of Surgeons held in San Francisco on October 28 to November 1, 1935, it was possible to bring from California and adjacent states a total of twenty-five patients still living at the end of five years, and clinically clear of symptoms of cancer; and to present these patients, with others not so fortunate, in the clinic rooms, for examination by attending physicians and surgeons who were present at the reading of the paper.

THE PATHOLOGY OF SUDDEN OPERATIVE DEATH*

By Paul Michael, M.D.
Oakland

Discussion *by Paul H. Guttman, M.D., Sacramento; A. M. Moody, M.D., San Francisco; Jesse L. Carr, M.D., San Francisco.*

The occasion of sudden operative death is, fortunately, a rare event in the course of surgical practice. The pathologist, situated as he is, may better be able to form a disinterested and unemotional opinion toward the solution of this problem when it occurs. Although a great deal of effort has been expended of late in evaluating the various factors, there is still much to learn before the final solution is reached.

The object of this paper is to endeavor to answer the following question: "What is it that happens to a patient appearing in relatively good health, with a normal blood pressure, normal heart action and no apparent pathologic derangement in the cardiac or respiratory systems, that causes a cataclysmic exitus on the operating table?" In answering the question, the scope of this paper must be qualified to include only those deaths occurring in the course of a general anesthesia involving the use of nitrous oxid and oxygen, ether, or both.

CAUSES OF SUDDEN OPERATIVE DEATHS

The following enumerated causes explain the great majority of deaths on the operating table:

1. Poor physical condition of the patient.
2. Improper technique in the administration of the anesthetic.
3. Impurities present in the anesthetic used.
4. Extreme loss of blood during the operation.
5. Asphyxiation.
6. Intracranial hemorrhage.
7. Acute hemorrhagic pancreatitis or hemorrhage into the pancreas.
8. Hemorrhage into the adrenals.
9. Coronary occlusion.
10. Embolism.
11. Fatal stimulation of the carotid sinus.
12. Persistent thymus or status lymphaticus.

Here we have twelve possible causes of death occurring in the course of an operation under a general anesthesia. Seven out of the twelve will commonly give us some organic characteristic picture at autopsy upon which we may make a diagnosis. These are: asphyxiation, embolism, intracranial hemorrhage, pancreatic hemorrhage, adrenal hemorrhage, coronary occlusion, and status lymphaticus or persistent thymus. In the remaining five the pathologist may be at a loss in making an anatomical diagnosis as to the cause of death.

The causes of poor physical condition of the patient are legion, and naturally cannot be enumerated. Such deaths may be the result of improper judgment or incorrect diagnosis, and should not be classed as due to the anesthesia. In this latter group we must remember that a death occurring during an abdominal laparotomy, when a coronary occlusion was present, cannot be attributed to the anesthetic alone.

COMMENT ON CAUSES OF SUDDEN OPERATIVE DEATHS

The following causes of death deserve a more detailed description of the anatomical findings and the causes ascribed to them:

1. *Asphyxiation.* — With rare exception, no matter the cause of asphyxiation, we have the following anatomical characteristics: cardiac dilatation, small petechial punctate hemorrhages over the visceral pleura and visceral pericardium, deeply bluish, red lungs showing marked edema and congestion, bilaterally and symmetrically scattered petechial hemorrhages in the basal ganglia.

2. *Intracranial Hemorrhage.*—Cerebral hemorrhage is not confined only to elderly people. We may also encounter it in younger patients, particularly in luetics and the thymic-constitutioned. The middle cerebral artery is the one principally involved, although hemorrhage of any of the Circle of Willis vessels may occur, with medullary pressure resulting. It must also be kept in mind that sudden death has been reported due to rupture of an aneurysm present within the cranial cavity.

3. *Hemorrhage Into the Pancreas.*—Acute hemorrhagic pancreatitis has been reported occurring during general anesthesia. None of the reported cases showed any symptoms referable to the pancreas prior to the anesthesia. The probable explanation of this is that duodenal contents, or irritating bile, regurgitates back into the pancreas. The pancreatic ferments then produce rapid destruction of the organ, causing death by shock from split-protein products.[1]

4. *Hemorrhage Into the Adrenals.*—Unilateral or bilateral hemorrhage into the adrenals during general anesthesia is sometimes seen as a cause of death. The whole adrenal gland may be involved, but usually the most marked hemorrhage occurs in the medulla. The rôle of the anesthesia in this hemorrhage is not well defined. The anatomical findings of cardiac dilatation and acute pulmonary congestion are found.

5. *Coronary Occlusion.* — Coronary occlusion may account for as high as 20 per cent of sudden deaths occurring in adults undergoing operation.[2] This figure does not include those patients incorrectly subjected to an abdominal laparotomy when a coronary artery obstruction is already present. The findings in these cases show that occlusion may occur at any point in the coronary arterial tree, but especially in the descending branch of the left coronary vessel. Acute passive congestion of all organs, especially the lungs, is seen at autopsy.

6. *Embolism.* — Pulmonary embolism presupposes a previous thrombosis, either due to tumor invasion of the vessel wall or to some previous vascular damage. Pulmonary infarction, then, rarely occurs on the operating table, although it is not infrequently seen as a postoperative complication. There are two special types of embolism,

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* Read before the Pathology and Bacteriology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

however, which merit additional consideration, namely, fat embolism and air embolism.

Fat embolism: Fat embolism may be due to endogenous or exogenous fat being introduced into the circulation. Endogenous fat embolism from the body itself may occur, especially during trauma or operations on the long bones. There may be an abnormal destruction of fat cells in the bone marrow, tearing of the venules in the Haversian canals of the bones, or increased internal pressure in the region of a fracture which may favor entrance of fat into the blood stream.[3]

Iodized oil is now frequently used as an opaque substance to fill cavities and occasionally may enter the blood stream. Due to abnormal pressure during injection, pathologic permeability of vessels, or injury to any organ during the injection, a disseminated fat embolism may occur. The mechanism of fat embolism may be explained on the basis of a physicochemical phenomenon. There is an alteration in the state of the existing fat in the blood stream leading to the formation of an emulsion. This naturally exists as a foreign body and may result in occlusion of small capillaries.

Fat emboli may lodge in the lungs, resulting in pulmonary embolism. The fat, however, may reach the lungs and do but a minimum amount of damage there, being forced through the lung capillaries into the left side of the heart and into the systemic circulation. From this point on, any organ or tissue may be involved. The fat is usually disseminated throughout the organ or tissue in small droplets which may be demonstrated by osmic acid or other fat stains. A paradoxical embolism due to a patent foramen ovale may occur, and this possibility must always be borne in mind.

Air embolism: Although man is particularly immune to embolism from air, such an event sometimes is seen. Two main types of air embolism are encountered; first, when a large quantity of air is injected into the venous system. At autopsy, the right heart is markedly dilated and contains a large amount of frothy blood. Death in these cases is usually the result of a mechanical obstruction ending in fatal auricular or ventricular fibrillation. The second type of fatal air embolism is encountered when air is accidently introduced into any one of the pulmonary arteries. Death erroneously attributed to "pleural shock" may be explained on this latter basis. Columns of air may disseminate through the systemic circulation, especially the brain. Air in the smaller arteries and arterioles leads to slowing of the blood stream, causing prestasis and stasis. Diapedesis takes place, resulting in small hemorrhagic points, progressing to occlusion and perivascular hemorrhage. Chase has shown that conglutination occurs during prestasis; while agglutination follows permanent stasis.[4] At autopsy, in these cases the brain shows cerebral edema, hyperemia and perivascular hemorrhages that may be cortical, subcortical, meningeal, or in the basal ganglia.

7. *Fatal Stimulation of the Carotid Sinus.*—This is a cause of death which has, until recently, been somewhat overlooked. Although no definite pathologic picture exists postmortem, abnormal stimulation of this sinus must be kept in mind as a possible factor. Death by pressure on the vagus nerve is probably explained as carotid sinus stimulation. The carotid sinus is located just behind the angle of the jaws. This bulb is a dilatation of the root of the internal carotid, which is somewhat delineated from the rest of the carotid artery by having a thinner wall and possessing an investment of sensory end-organs. These are connected to the brain by a branch of the glossopharyngeal nerve. In health the carotid sinus is in a state of fairly constant tonus. This tone increases or diminishes with the varying arterial pressure within it. The carotid sinus is also sensitive to other stimuli, such as pressure on the wall, stimulation of its nerve, or certain drugs. Morphin particularly may increase its response, resulting in hypotension and slowing of the heart.

Believing that the carotid sinus may sometimes be stimulated by certain anesthetics, a group of workers at the University of Pennsylvania[5] have recently shown that inhalant anesthesias have a stimulating effect upon the sinus. Nitrous oxid was found to cause such a stimulation. These workers used dogs, and employed 80 per cent nitrous oxid with 20 per cent oxygen. They reported no serious effects until the anesthetic had lasted at least twenty minutes. After this period certain dogs showed a respiratory arrest and circulatory collapse, similar to that observed in humans on the operating table. They believed that there was a toxic action of nitrous oxid probably associated with some personal idiosyncrasy, as this effect could not be repeated in all dogs. They reported no characteristic postmortem picture observed, although acute congestive failure was seen in all animals studied. The practical conclusions drawn by them from this study were:

1. In anesthesia, pressure on the carotid sinus must be avoided.

2. Ether vapor with nitrous oxid tends to offset the reaction.

3. In operative accidents, drugs are useless, artificial respiration being the best procedure.

8. *Persistent Thymus or the Thymicolymphatic Constitution.*—In 1930, Young and Turnbull,[6] reporting for the English Status Lymphaticus Investigation Committee on over six hundred autopsies, questioned the existence of a thymic diathesis. This conclusion fails to explain the importance of status lymphaticus, as much as the diametrically opposite belief that all sudden death may be explained on this basis. Between these two extremes are the more conservative pathologists who believe that many cases of sudden death may be thus explained. Douglas Symmers[7] has defined the thymicolymphatic constitution as a "combination of hereditary constitutional anomalies entering into which are usually certain peculiarities of configuration, with preservation or even hyperplasia of the thymus at an age when involution is to be expected—hyperplasia of the lymphoid cells of the spleen, intestines, and elsewhere; changes in the hair, hypoplasia of the vascular system, sometimes with congenital hypoplasia in the geni-

talia." An idea as to the prevalence of such a condition may be found in the Bellevue Hospital statistics. In a series of 4,000 autopsies, status lymphaticus was found in 249 cases, or in 6.2 per cent of the postmortem examinations. It was observed six times more frequently in males than in females. There were two main anatomical types: a true status lymphaticus, where the lymphoid tissues were hyperplastic and flourishing, and the recessive status lymphaticus, where the lymphoid tissues were atrophic but present microscopically.

Early in the study of this condition, sudden death, especially in small infants, was attributed to a mechanical obstruction of the trachea by an enlarged thymus. Anatomically, we now know that this belief is incorrect, as associated characteristics of this constitution include anatomic factors which may be predispositions of sudden death. For instance, this type of patient has a thin-walled vascular tree, especially in the brain. Hence there may be a personal idiosyncrasy for cerebral hemorrhage. These patients also have a hypoplastic aorta with small coronary vessels, hence they are predisposed to coronary arterial disease, interstitial fibrosis of the heart, and premature cardiac accidents. Graves's disease and persistent thymus are not infrequently related and may coexist in the same patient. A hyperplastic thymus is the rule in sudden death of patients suffering from Graves's disease. Finally, we know that asthmatics frequently belong in the thymico-lymphatic group with hypoplastic aorta, hypoplasia of the adrenal medulla, and lymphoid hyperplasia.[8,9,10] We, therefore, can associate with the persistent thymus the following predispositions to accident:

1. Cerebral hemorrhage.
2. Myocardial disease.
3. Graves's disease.
4. Asthma.

This last relationship has helped us form some conception as to the mechanism existing; that is, that the reaction between the anesthetic and the liberated nucleoproteins derived from the breaking down of tremendous numbers of lymphoid cells results in an anaphylactoid reaction. This is well borne out at autopsy when in these patients we notice large numbers of necroses occurring in the lymphoid areas, especially in the lymphoid follicles along the gastro-intestinal tract and in the thymus. As most of these split-protein products are liberated into the venous system, pulmonary edema is practically always found at autopsy.[10]

COMMENT ON FOUR CASES

During the past year, I have had the opportunity of studying four persons to determine the cause of death occurring under general anesthesia on the operating table. The first was in a female twenty-nine years of age, who died during a simple appendectomy soon after the abdomen was opened, and before any manipulative work was done. The second was a male, nineteen years of age, who succumbed at the end of an operation for hernioplasty. The third was a Chinese boy, sixteen years of age, who died during a tonsillectomy. The fourth was a male, fifty-five years of age, who expired during a thyroidectomy. In the female patient (first case) the recessive type of status lymphaticus with microscopic lymphoid hyperplasia was seen. There was an interstitial fibrosis of the heart with a coronary sclerosis out of all proportion to her age. In the second, third, and fourth, the thymus glands weighed 33, 38, and 80 grams, respectively. All of the male patients showed essentially the same anatomical findings, and the observations will be summarized as follows: The thymus in each instance was tremendously enlarged, and showed a marked hyperplasia with engorgement of the sinuses, and scattered focal necroses in the lymphoid elements. Pulmonary edema was marked in all, and there was some microscopic lymphoid cell infiltration of the lungs in the region of the hila. There was a moderate hypoplasia of the aorta with some coronary arterial disease, even in the young Chinese boy. The thyroid patient (Case 4) showed fairly marked medullary hypoplasia of the adrenals with definite eosinophilic cell infiltration. The entire lymphoid system, apart from the thymus, was hyperplastic in all cases, especially along the gastro-intestinal tract. Some of the lymphoid areas in this latter region showed focal necroses and areas of edema in the wall of the intestines.

There appears to be sufficient evidence from the above data that sudden death in many cases may safely be associated with the thymic constitution and its allergic interrelationship.

IN CONCLUSION

In conclusion, then, we see that sudden death under general anesthesia may occur and does occur regardless of the operation or the satisfactory physical condition of the patient. It does not reflect on the anesthetist, the surgeon, or the physician who conducts the preoperative examination. It is usually due to a combination of hereditary and constitutional anomalies, plus a personal idiosyncrasy which, with our present knowledge and armamentarium, may be impossible to ascertain.

There are a few practical suggestions gained from this study which may be of value:

1. Avoid pressure on the carotid sinus during anesthesia.

2. Make certain that a suitable physical examination has been made and that the necessary laboratory data are known.

3. Insist on a diligent examination on definitely known asthmatic children before submitting them to a general anesthesia.

434 Thirtieth Street.

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DISCUSSION

Paul H. Guttman, M. D. (605 Medico-Dental Building, Sacramento).—Doctor Michael has clearly pointed out that considerable controversy still exists on the question of status thymicolymphaticus. As the result of the careful studies of Hammar and, later, Boyd, conclusive data is presented which disproves the anatomical concept of status thymicolymphaticus. The size of the thymus and lymph nodes is dependent to a large extent upon the nutrition of the patient. In cases of sudden death from any cause, the weight of the thymus and size of the lymph nodes are large in well-nourished individuals. In those who suffer loss of weight as the result of prolonged illness, the weight of the thymus and lymph nodes decreases considerably. Failure to recognize these factors and the normal variation in the size of the thymus and lymph nodes has often resulted in the erroneous diagnosis of status thymicolymphaticus in cases in which the cause of death could not be determined.

It is often stated that degenerative changes are seen in the secondary follicles of the lymph nodes in status thymicolymphaticus. These changes are not constant and are frequently found in the course of normal involution of these glands and in toxic conditions unrelated to status thymicolymphaticus.

Although the anatomica concept of status thymicolymphaticus has suffered a blow as the result of the work of Hammar and Boyd, it is generally agreed that certain individuals who die as the result of trivial causes possess a constitutional inferiority which is not definable on an anatomical basis. Since we have no better terminology at the present time to classify this type of individual, it is well that the term "status thymicolymphaticus" is retained until this condition is better understood.

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A. M. Moody, M. D. (St. Francis Hospital, San Francisco).—Doctor Michael has adequately covered the subject of sudden operative deaths in this paper. The first in his series of twelve causes, *i. e.*, "poor physical condition of the patient," will include many possible causes for sudden death when one adds to this anesthesia and varying amounts of surgical trauma and manipulation. The "constitutional inferiors" are quite apt to react abnormally during surgical procedures.

It should also be remembered that patients with diseased coronary arteries may die suddenly with or without occlusion of the arteries. The same may be said of those with fatty hearts.

Sudden operative deaths should be reduced considerably if the three practical suggestions offered by Doctor Michael in his conclusions are followed by all surgeons.

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Jesse L. Carr, M. D. (University of California Hospital, San Francisco).—In undertaking to discuss the pathology of sudden operative deaths, Doctor Michael has attempted a project which most of us evade. There are two main reasons for this. First, the cause of sudden operative death is frequently obscure, and second, it always involves the discussion of the status thymicolymphaticus. No one likes to attempt a study which he cannot complete with satisfaction to himself and to others involved, but even more does he hesitate undertaking a discussion of a subject about which there is great controversy, and following which there will be many a dubious one who will infer that the discusser does not know what he is talking about. This is especially true of any problem involving the thymic state. In reviewing the cases at the coroner's office in San Francisco, one would want readily to accept the other eleven good reasons that Doctor Michael lists as causes for sudden operative deaths; but he still will find the thymic complex staring him uncomfortably in the face.

To one who has seen any appreciable number of sudden fatalities on the operating table, there can be no doubt of a thymic status, and there can also be no question either about the fragility of people who have endured such a state. They do not, at autopsy, show adequate cytological causes for having died, but they do show consistently a hyperplasia of lymphoid elements wherever they may exist, and they also have a large thymus. It makes little difference whether or not one is willing to admit that the thymus has any lymphoid tissue in it, or whether it is an epithelial structure, the fact still remains that people with a thymus too large for their age and correlated with a lymphoid overgrowth or hyperplasia are consistently found dying suddenly and without further cytological changes upon being anesthetized.

Although Doctor Michael has only considered the type which has died following ether anesthesia, we would like to call attention to the fact that they die during operation whether or not ether is used. We have seen a death in this type of individual following local infiltration for cutaneous anesthesia, and another following cocainization of nasal mucous membranes, and even in operative cases in which no anesthetic was used. They are no doubt less resistant and more sensitive in their reaction to general anesthetics than are normal persons. But they are also more sensitive to other untoward stimuli as well.

Unfortunately, there is no clinical gauge or measure of the extent of this status in the living, excepting perhaps the thymic shadow and general anatomical topography in the young, so that it is necessarily hard to apprehend the disease. Certainly, however, it should be taught that status thymicolymphaticus does exist, and is one of the things which contribute to a sudden operative death.

Doctor Michael's other causes and their pathologic pictures are most interesting and soundly reviewed.

INJECTION OF SYMPATHETIC NERVOUS SYSTEM*

By Paul G. Flothow, M.D.
Seattle, Washington

Discussion *by Charles F. McCuskey, M.D., Los Angeles.*

Despite all that has been done on diagnostic and therapeutic injections of the sympathetic nerves, there are still sympathetic operations being performed without adequate diagnostic measures to prognosticate the results.

There is little justification for unsuccessful operations on the sympathetic nervous system. This is particularly true of those operations employed for the relief of pain, in view of the fact that we have in hand a diagnostic measure that will determine definitely whether or not a given case will respond to operation.

By injection of the proper sympathetic nerves in cases of vascular insufficiency, it is a simple matter to determine quite definitely how much the blood supply to an extremity can be improved, and whether or not pain can be alleviated.

As far as we can ascertain, Von Gaza [1] was the first to inject the sympathetic nerves. He was followed by Swetlow,[2] White,[3] Flothow,[4] and others. The technique for injections of the sympathetic nerves is now quite well defined.

TECHNIQUE OF CERVICODORSAL SYMPATHETIC INJECTION

Swetlow's [2] technique will not be described. We use a technique illustrated to us by Lundy. For conditions pertaining to the head and upper extremities, it is necessary to insert only two needles: one opposite the seventh cervical spine which will bring the needle in position between the inferior cervical and the first thoracic ganglion, and the other opposite the first dorsal spine which will put it in approximation to the second dorsal ganglion.

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* Read before the Anesthesiology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13 to 16, 1935.

The technique is simple. Skin wheals are made opposite the spinous processes of the seventh cervical and the first thoracic vertebrae three centimeters from the midline. The needles are then inserted directly inward perpendicular to the surface of the body, until they encounter the transverse process. At this point a few cubic centimeters of procain are injected to anesthetize the periosteum. The needles are then inserted at a slightly different angle to slip just above or just below the nearer edge of the transverse process. After the needles slide past the border of the transverse process they are inserted directly inward for an added distance of three centimeters. This places the ends of the needles in very close approximation to the sympathetic ganglia. Many times one strikes the ganglia directly, as they lie between the bodies of the vertebrae and the pleura. From five to ten cubic centimeters of one per cent procain are then inserted in each needle. Within a few minutes definite signs of sympathetic injection occur, namely, Horner's syndrome, and a definite increase in the circulation of the extremity as evidenced by an increased warmth, an engorgement of the veins, a pinker color, and the absence of perspiration. If the injection is being done for pain and the signs of a successful injection are present with relief of pain, one may be quite certain that the pain is mediated by the sympathetic nerves.

TECHNIQUE OF LUMBAR SYMPATHETIC INJECTION

The technique is similar to that for the dorsals, and is also one described by Lundy. Needles are inserted three centimeters from the midline, but here opposite the interspaces rather than opposite the spinous processes of the first three or four lumbar vertebrae. The needles are inserted perpendicularly until they encounter the transverse processes. From this point the needles are advanced from four to five centimeters deeper. Usually five cubic centimeters of one per cent procain are inserted in each needle. In Labat's technique the needle is inserted from seven centimeters out at an angle of forty-five degrees. We use this at times as an alternate procedure. Both Labat's and Swetlow's techniques are not considered as safe as the injections we have described, owing to the possibility of entering the intervertebral foramina.

APPLICATION OF DIAGNOSTIC INJECTION

1. Cases of atypical pain: (*a*) Atypical facial pain. (*b*) Brachial plexus pain, painful stumps, etc. (*c*) Abdominal pain, gastrict crises, etc.
2. Migraine.
3. Pelvic pain and dysmenorrhea.
4. Vascular lesions of the extremities.
5. Malignancies of the face, neck, and pelvis.

In all of these conditions it is obligatory that the patient be experiencing pain at the time of the injection. In order to illustrate the application of diagnostic injections in these various conditions, we will present case reports of the various conditions.

We had recently a case of atypical facial pain which has all of the elements involved. A woman, aged 56, for twenty years had been having an excruciating pain in the right side of the face, head, neck, shoulder, and arm. The pain would come in paroxysms, lasting for about fifteen minutes, and from two to several hours apart. During this time never more than a day had passed without this pain being present. The only anatomic nerve supply which could possibly account for this type of pain was the sympathetic distribution from the cervicodorsal ganglia. Strangely enough there was a definite Horner's syndrome present which she had had ever since the onset of the pain. In this case a diagnostic injection was done, and the pain was promptly relieved. A diagnosis of a degenerative lesion of the sympathetic ganglia was made and the inferior cervical, and the first and second thoracic ganglia were removed, with immediate relief of pain. The ganglia were very small and sclerotic.

We have previously reported a case of brachial plexus pain due to malignancy, in which diagnostic injection relieved the pain.[5] This injection was followed immediately by alcohol, which made the pain relief permanent.

We have had quite a number of painful stumps in which diagnostic injection has failed to relieve the pain. Occasionally, however, one does encounter a case of painful stump in which diagnostic injection of the sympathetics brings relief, and in this type of case one may either use alcohol injection or surgical removal of the sympathetic ganglia.

We have had one case of gastric crisis in which bilateral procain injection of the fifth to the eleventh dorsal segments relieved pain. In this particular instance it was not necessary to inject alcohol, as the injection of procain served to give a permanent relief. We are unable to explain this occasional phenomenon.

A recent case of migraine, or hemicrania, in a young married woman, aged 26, illustrates the use of diagnostic injection in this condition.

Case 1.—This patient was instructed to enter the hospital at the height of her migraine attack. The pain being right-sided, we injected the right inferior cervical, and the first and second thoracic ganglia, and within a few minutes the pain had entirely disappeared. Not only had the pain disappeared, but the usual gastric upset and severe prostration which generally accompanied the attacks was aborted and she had no further trouble during this attack. This patient has been advised to have the cervicodorsal, ganglia removed surgically.

The application of diagnostic injection in pelvic pain and dysmenorrhea can be well illustrated by a case seen three years ago.

Case 2.—A married woman, aged 26, had had excruciating attacks of dysmenorrhea from the onset of her menses. The pain was so intense that for a period of six or eight hours it was necessary to administer opiates. This patient was injected within two hours of the onset of her pain, and within ten minutes of the injection of the lumbar sympathetics she was entirely relieved of pain. On this basis, alcohol was injected and she has gone three years without recurrence of the dysmenorrhea.

At present, where we are dealing with dysmenorrhea, we have been using a different type of injection, inserting the needle opposite the fifth lumbar vertebra to directly infiltrate the superior hypogastric plexus. This technique has already been described elsewhere.[6]

The use of diagnostic injections of the sympathetic nerves in vascular lesions of the extremities warrants a presentation entirely devoted to this subject. Suffice it to say that one can determine quite accurately in advance the amount of improvement of the circulation and relief of pain which can be expected to follow a sympathetic operation, merely by infiltrating the sympathetic ganglia for the purpose of diagnosis. If there is sufficient increase in temperature and evidence of increased circulation, or pain relief, then one can be certain that the operative removal of the sympathetic nerves will give the same result. We have had a large number of such cases to which we refer in previously published articles.[7, 8]

Regarding malignancies of the face, neck and pelvis, we will merely state the fact that in many of these cases one may find, by diagnostic injection of the sympathetic nerves, that there is a measure which can be applied to alleviate these painful conditions.

We might cite the case of a woman suffering from a very large, intensely painful, malignant growth involving the neck, the lower jaw, and the side of the face.

Case 3.—Owing to the location of the tumor it was impossible to inject the somatic nerves, and therefore we suggested an attempt to relieve the pain by way of the sympathetic nerves, knowing that often in malignancies the pain is of vascular rather than somatic origin. Injection of the cervicodorsal sympathetic ganglia in this case resulted in approximately 75 per cent relief of pain, which condition was made permanent by the injection of alcohol, and this woman spent the few remaining months of her life in comparative comfort.

The same type of injection may be applied in other malignant conditions of the head, neck, pelvis, and brachial plexus.

APPLICATION OF AND INDICATIONS FOR THERAPEUTIC INJECTIONS

We now limit therapeutic injections to cases in which surgical removal of the sympathetic ganglia is contraindicated. The advantage of alcohol injection of the sympathetic nerves lies in its simplicity. Its disadvantages are, first, that it is a blind procedure, and one can never be certain that all of the necessary sympathetic fibers are properly injected; second, it is not permanent; and third, it is followed in most cases by a rather severe neuritis.

We believe that surgical removal of the sympathetics, where not contraindicated, is a much better procedure than therapeutic alcohol injection. Alcohol injection does occupy a very important place, although we are doing less and less, feeling that if alcohol injection is warranted, surgical removal is a more satisfactory procedure.

There are conditions, however, in which alcohol is the method of choice, namely, in malignancies of the face, head, neck, and pelvis, by virtue of the fact that the life expectancy in these conditions is usually not very long, and these patients are seldom good operative risks. Alcohol injection is also very valuable in the treatment of both angina pectoris and vascular lesions of the extremities in the aged.

For angina pectoris the injections are made at five points on the left side opposite the inferior cervical and the first, second, third, and fourth dorsal spinous processes. This is done in order to infiltrate all of the fibers which may carry painful sensations from the heart. Seventy-five per cent of the patients suffering from angina pectoris can be completely relieved of their anginal pain. The results of alcohol injection of the sympathetics for this condition have been excellent over a period of years. In our series of twenty cases, 80 per cent have been relieved of anginal pain, some as long as three years.

Up to the present we have confined our treatment of angina pectoris to alcohol injections. We have had no immediate deaths as a result of the injections. One man, who died a few days later, was suffering from severe coronary thrombosis at the time of the injection. He had no further cardiac pain following the injection of the sympathetic nerves. The risk is not great; we have been able to do twenty cases without a death referable to the injection, and the results have been more than satisfactory. The greatest disadvantage is the fact that these patients practically all have severe alcohol neuritis for a period of weeks or months. Heretofore, surgery has been contraindicated in most of these cases because of the extensive operation which would be necessary to remove all of the sympathetic fibers, and the extremely high mortality. Since Gask's operation, which we have described recently,[9] has been developed, it is possible to remove all of the necessary ganglia through an anterior approach, and, therefore, in the future good risks will no doubt be advised to undergo operative removal rather than alcohol injection.

We have long been at a loss to understand why thyroidectomy for angina pectoris should be accepted so enthusiastically by the profession since it is based upon unsound and unproved physiology and anatomy, whereas the alcohol injection or operative removal of the sympathetic ganglia is based on sound physiology and anatomy. The answer to this question is due, we feel, to the fact that the operation of thyroidectomy is one with which everyone is familiar, and one which is not surrounded by any mysticism; whereas apparently anything pertaining to the sympathetic nervous system is still more or less in the realm of hypothesis so far as the great majority of physicians is concerned, and for that reason they are prone to favor something unsound with which they are familiar rather than accept a sound principle with which they are not.

Regarding vascular lesions of the extremities: it is obvious that some cases of arteriosclerotic endarteritis are very poor surgical risks, and in these cases alcohol injection is preferable to surgical removal of the sympathetics.

Occasionally we use alcohol injection in cases of Buerger's disease where diagnostic tests give us a questionable result. In these cases we use an alcohol injection as a glorified diagnostic procedure. If injection results in improvement that is definite and continuous, it can always be followed by surgical removal of the sympathetic ganglia which will insure good results.

There are certain conditions in which diagnostic injections are of no value and are not used. These are conditions such as spastic paraplegia, multiple sclerosis, encephalitis lethargica, constipation and megacolon, and progressive muscular atrophy. Diagnostic injections are of no value since the effect of the injection does not last long enough for the result to be of any prognostic value. Neither are alcohol injections indicated, because if any procedure is indicated it must be a complete and radical removal of the sympathetics such as can be accomplished only by surgical removal.

We feel that certain selected cases of spasticity of the lower extremities are still amenable to sympathetic surgery in spite of all that has been written to the contrary.

Multiple sclerosis has been treated by ganglionectomy and in our few cases has been very successful.

We have never seen a case of encephalitis that has been benefited by operation.

Constipation and Hirschsprung's disease are brilliant examples of the good results of sympathetic surgery.

We have recently had a case which would indicate that progressive muscular atrophy may be checked and even improved by sympathetic ganglionectomy.

SUMMARY

To summarize, the really important field of injections of the sympathetic nervous system lies in the use of these injections for diagnostic purposes.

Many cases of atypical pain—facial, brachial, or abdominal—may be found to be pains which are mediated by the sympathetic nerves, and can, therefore, be relieved by the proper application of sympathetic surgery.

By diagnostic injection migraine is often found to be a sympathetic affection and can be relieved.

Many cases of pelvic pain, especially functional types of dysmenorrhea, will be found to be amenable to sympathetic surgery by a diagnostic injection.

In vascular lesions of the extremities it is possible by these injections to accurately determine which case is amenable to sympathetic surgery, and one can almost prognosticate from the injection how good the result of surgery will be.

In malignancies, particularly of the face, neck, and pelvis, we find that often a simple diagnostic injection will indicate a method that will give these people relief without any radical surgery, namely, alcohol injection of the sympathetics.

CONCLUSIONS

Diagnostic injections of the sympathetic nervous system should always be employed to determine whether or not pain may be relieved before advising any surgical procedure.

There is no reason why there should be unsuccessful operations on the sympathetic ganglia for the relief of pain or for vascular insufficiencies of the extremities, if diagnostic sympathetic injection is used to determine whether or not the case is a suitable one.

Alcohol injection of the sympathetic nerves is an extremely useful method for the alleviation of pain in malignancies of the face, neck, and pelvis.

The results of alcohol injection of the sympathetic ganglia in angina pectoris are excellent. From 75 to 80 per cent of these patients may be completely relieved of their anginal pain.

In vascular insufficiencies of the arteriosclerotic type many amputations may be saved by alcohol injection of the lumbar sympathetic ganglia, especially if this is preceded by a diagnostic injection.

While alcohol injection of the sympathetic nerves is a very useful procedure in some conditions, in the great majority of cases, if alcohol injection is warranted, surgical removal is the procedure of choice.

The surgeon accepts a grave responsibility when he advises surgical removal of the sympathetic nerves for any painful condition or any vascular lesion if diagnostic injection has not been employed to determine exactly what the result of this operation will be.

927 Medical Dental Building.

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DISCUSSION

Charles F. McCuskey, M. D. (2439 North Commonwealth Avenue, Los Angeles).—In his paper Doctor Flothow has presented the question of diagnostic and therapeutic injection of the sympathetic nervous system. Novocain injections, to determine the origin of pain and the results that may be expected from sympathetic surgery, should be used routinely before subjecting these cases to surgery.

The importance of a thorough neurologic examination, before attempting any alcohol injection for the relief of pain, cannot be overemphasized. Careful examination will frequently show the patient to be a psychoneurotic, or psychotic—one in whom nothing can be improved by any type of treatment. We can always promise the patient to produce anesthesia in the painful area; but if the pain is central in origin he will not be benefited. Since I have been referring such cases to a competent neurologist before attempting any type of alcohol injection, I have avoided much grief for myself.

Patients suffering from angina pectoris, where the electrocardiographic and physical examinations are essentially negative, are the best type for obtaining satisfactory results. The technique of making the injections in various areas is not difficult for one familiar with regional anesthetic procedures. The decision as to the indications for the injection of alcohol requires careful consideration, and this method for the relief of pain should not be used promiscuously. There are no contraindications to diagnostic novocain injections.

NEUROSYPHILIS: ITS TREATMENT*

By Norman N. Epstein, M.D.
San Francisco

Discussion *by George S. Johnson, M.D., San Francisco; Edward Twitchell, M.D., San Francisco; Kendall Frost, M.D., Los Angeles.*

INVOLVEMENT of the central nervous system by a syphilitic infection is one of the most common and most serious complications of this disease. Invasion of the central nervous system by the Treponema pallidum occurs shortly after the infection has taken place. It is certain that these organisms become lodged in the various tissues during their general dissemination in the early period of syphilis, and that the large majority of cases of neurosyphilis become established during the first year of the disease. Although the central nervous system may escape involvement during the first dissemination of the Treponema pallidum, it may be ultimately affected if a later dissemination of the organisms occurs. In approximately 25 to 50 per cent of cases of early syphilis, abnormalities of the spinal fluid are found, varying from a slight increase in the cell count to the typical "paretic" findings. These patients, if treated poorly or if untreated, are potential candidates for the various forms of early and late neurosyphilis. In late syphilis about 25 per cent of the cases have involvement of the central nervous system.

By detection of neurosyphilis early in the course of a syphilitic infection, and by the institution of adequate therapy, many of the catastrophes of late neurosyphilis can be prevented.

LUMBAR PUNCTURE

The importance of spinal fluid examination cannot be overemphasized. No patient with syphilis, regardless of how early the diagnosis had been made nor how intensively he had been treated, should be discharged from observation without first having an examination of the spinal fluid.

In early syphilis lumbar puncture may be done at the conclusion of one and one-half to two years of treatment, whether the blood Wassermann or Kahn test is positive or negative. A latent neurosyphilis may be associated with a condition of a persistently positive blood Wassermann. In Wassermann-fast patients, or in those with relapsing positive tests on the blood, it will be found that positive spinal fluid findings are present in a large percentage of cases.

In latent and late syphilis without clinical signs of neurosyphilis, lumbar puncture should be done at the conclusion of one year of treatment. In those patients with definite clinical evidence of neurosyphilis, in the early or late periods of the disease, the spinal fluid should be examined before treatment is instituted and checked at six-month intervals as a guide in therapy. Where an abnormal spinal fluid has been found, a yearly lumbar puncture for three years should be demanded after the conclusion of treatment.

CLASSIFICATION OF NEUROSYPHILIS

The lesions of neurosyphilis are of two main types, namely, inflammatory and degenerative. The meningeal, meningovascular and cerebrovascular forms are essentially inflammatory, while the parenchymatous varieties, that is, general paresis and tabes dorsalis, are mainly degenerative. Although one or the other of these types may predominate, it is the rule to see various combinations of them. In early syphilis the inflammatory reactions occur almost invariably. In late neurosyphilis, about 60 per cent of the cases are meningovascular and 40 per cent parenchymatous. Asymptomatic central nervous system syphilis comprises a large group, and is comparable to the latent period of systemic syphilis.

TREATMENT

The eventual response to treatment in a given patient will depend upon the amount of destruction of nervous tissue which has occurred previous to the institution of treatment. This emphasizes the importance of detecting the condition as early as possible, and applying appropriate therapeutic measures.

The types of involvement in the central nervous system, which are found in the early period of syphilis, respond very satisfactorily in the majority of instances to the usual methods of treatment employed for systemic syphilis. The vigorous and continuous use of the arsphenamins, alternating with courses of the heavy metals, particularly bismuth, over a period of two to three years, will result in a serologic and clinical cure in approximately 75 to 85 per cent of cases. For those patients who prove resistant to this treatment, special methods of therapy must be employed.

NEURORECURRENCE

Neurorecurrence, or neurorelapse, is a clinical phenomenon which requires special mention. This condition represents an overwhelming infection of the central nervous system by Treponema pallidum, with the sudden development of an acute syphilitic meningitis, a cerebrovascular accident such as a hemiplegia, a monoplegia or a paraplegia, or various cranial nerve palsies. Neurorecurrence is usually seen in those patients who have had inadequate therapy during the early period of their infection. It indicates that there has been an interference with the mechanism of resistance in the patient, leaving the central nervous system defenseless against an attack by the Treponema pallidum. Although a rarity in the adequately treated patient, neurorecurrence is observed in about ten per cent of inadequately treated patients.

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* From the Division of Dermatology, Division of Medicine of the University of California Medical School, San Francisco.

Read before the Dermatology and Syphilology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

The control of this condition requires an intensified plan of treatment. We have employed with satisfactory results the following regimen. The patient is rapidly mercurialized with a course of intramuscular injections of mercury succinimid, grains one-sixth five times weekly for thirty injections, or grains one-fourth three times weekly for twenty injections. This is followed with a course of eight injections of neoarsphenamin 0.45 grams to 0.6 grams at intervals of one week. Examination of the spinal fluid at this time usually shows a marked reduction in the cell count and a general improvement in the other findings. Treatment is then continued without rest periods, with alternate courses of bismuth salicylate and neoarsphenamin for a minimum period of two and one-half to three years. A course of bismuth salicylate consists of twelve weekly intramuscular injections of 0.2 grams (3 grains) each, while neoarsphenamin is given weekly intravenously for from six to eight weeks in dosage of 0.45 to 0.6 grams.

PARENCHYMATOUS NEUROSYPHILIS

The introduction of tryparsamid by Jacobs and Heidelberger in 1917, and of pyrotherapy by Wagner von Juaregg in 1919, have been outstanding contributions to the treatment of all forms of resistant syphilis of the central nervous system, and in particular the parenchymatous types; that is, general paresis and tabes dorsalis. The outlook has changed for these patients from one of complete hopelessness to one where a reasonable chance of relief may be expected.

TRYPARSAMID

Tryparsamid has earned, in recent years, well-deserved recognition as the most effective drug in the treatment of neurosyphilis. It is a pentavalent arsenical, with a low spirocheticidal action. It seems to act therapeutically by increasing the tissue resistance of the central nervous system against the infection.

There is a general tonic effect upon the patient, resulting in an increase in weight and a feeling of well-being. Tryparsamid is essentially of value in the treatment of neurosyphilis and has little effect upon the systemic infection.

The use of tryparsamid should be restricted to the treatment of those patients with neurosyphilis who have been resistant to treatment by arsphenamin and bismuth, and to those with the parenchematous forms of the disease. It is the drug of choice in general paresis. Arsphenamin and bismuth therapy should be used in all cases of neurosyphilis for at least a period of six months before tryparsamid is employed, unless there are clinical signs of general paresis. This is advised because patients with neurosyphilis may and frequently do have systemic syphilis as well.

Tryparsamid is relatively non-toxic, producing few systemic reactions. It is tolerated by the patient with surprisingly little discomfort. It can be administered intravenously in two- to three-gram dosage weekly for long-continued series of injections (fifty to one hundred). The outstanding toxic effect is upon the optic nerve, which may lead to blindness. This can be prevented in a large measure by careful selection of patients who, by ophthalmoscopic examination, show no pathologic changes in the optic nerve. The visual fields should be checked frequently during the treatment, as a narrowing of the visual fields is the earliest objective sign of toxicity. Disturbances of vision precede objective changes in the optic nerve, and by discontinuing the drug serious reactions may be avoided.

Satisfactory clinical and serologic results can be obtained with tryparsamid only when long courses of the drug are employed. We give courses of fifteen weekly injections of two grams each, alternating with courses of six to eight weekly injections of bismuth salicylate, 0.2 grams each, continuously over a period of from two to three years. Stokes reports that in general paresis the use of tryparsamid will produce complete remissions in 35 per cent, partial remissions in 34 per cent, and no improvement in 29 per cent. In his series, death occurred in 5 per cent. This is quite remarkable when it is remembered that, with treatment by arsphenamin and bismuth, the incidence of remission in general paresis is only 3 per cent. In other forms of resistant syphilis of the central nervous system, the tryparsamid increases the percentage of favorable therapeutic results to a considerable degree.

PYROTHERAPY (ARTIFICIAL FEVER THERAPY)

The introduction of malarial therapy in the treatment of neurosyphilis by Von Juaregg in 1919 has been one of the most important and interesting contributions to the treatment of this condition. Following his report, many other methods of producing artificial fever were tried. Some of these have now been discarded. It is the opinion of most observers that the essential factor in this treatment is the hyperpyrexia which is produced rather than the method in which it is attained. Inoculation with the parasites of relapsing fever and rat-bite fever, injections of foreign proteins, injections of sulphur in oil and certain physical methods such as hot baths, heat cabinets, diathermy, radiothermy and electric blankets, have been used to produce artificial fever.

Although in some instances the effects are more dramatic with malarial therapy, the therapeutic results have been similar with all methods in which temperatures of 104 degrees Fahrenheit (40 degrees centigrade) to 106 degrees Fahrenheit (41.1 centigrade) are produced and sustained for several hours. Approximately one-third of the patients with general paresis obtain complete remissions, one-third partial remission, and one-third are unimproved, become worse or die as a result of the treatment. In tabes dorsalis marked relief of distressing symptoms is obtained in a large percentage of cases. Pyrotherapy is of definite value in the treatment of other forms of neurosyphilis which are resistant to chemotherapy. As a general rule, clinical improvement precedes serologic changes by many months. It should be remembered that ultimate clinical improvement in a given case will depend upon the amount of damage done to the nervous system before therapy was instituted. For example, a patient with general paresis may obtain a cure of his condition, but he may have little cerebral tissue left and practically be no better off than he was before treatment was instituted. For this reason, the earlier pyrotherapy is used for a patient with paresis, the more hope there is of restoring him to normal function.

Pyrotherapy produces therapeutic effects by a direct effect upon the Treponema pallidum and by a stimulation of tissue resistance. It has been shown that Treponema pallidum will die in the test tube and in the tissues at a temperature of 42 degrees centigrade (107.6 degrees Fahrenheit) sustained for one hour; at 41 degrees centigrade (105.8 degrees Fahrenheit) for two hours; at 40 degrees centigrade (104 degrees Fahrenheit) for three hours; and at 39 degrees centigrade (102.2 degrees Fahrenheit) for five hours.

During the past five years we have used several methods of producing artificial fever, including diathermy, a heat-cabinet method, and recently a method in which heat radiation from the body surface is prevented by wrapping the patient in a special manner with blankets. This method has been described recently in detail.[1] The blanket method has the advantage that temperatures of therapeutic height and duration can be obtained with simplicity and with safety in trained hands. Antisyphilitic therapy by drugs can be given simultaneously with the pyrotherapy, and there is little interference with the patient's normal activities. This method of pyrotherapy is ideal for the ambulatory patient, and by its simplicity broadens the application of this type of treatment.

Regardless of the method employed, the use of hyperpyrexia as a therapeutic agent is dangerous unless conducted in a properly equipped hospital, and by physicians and technicians trained in this work.

SUMMARY

A general review of the treatment of neurosyphilis, according to modern principles, has been presented and the following points emphasized:

1. The prevention of late neurosyphilis may be accomplished by examination of the spinal fluid early in the course of the disease, and by the application of proper therapeutic measures in the event that abnormalities are found.
2. Systemic syphilis is frequently associated with neurosyphilis and must be considered when a plan of treatment is proposed. A preliminary course of arsphenamin and bismuth, covering a period of six months, should precede the use of special methods and drugs effective particularly in neurosyphilis, except where paresis has developed or some acute cerebrospinal accident.
3. The use of rapid mercurialization with mercury succinimid is of particular value in the treatment of neurorecurrence.
4. The usual plans of treatment advised for systemic syphilis will eradicate the large majority of instances of neurosyphilis found in the early period of the disease.
5. The value of tryparsamid and pyrotherapy in the treatment of parenchymatous neurosyphilis and other resistant types has been discussed.
6. The eventual result obtained in the treatment of neurosyphilis will depend upon the amount of damage done by the disease previously, for a paretic may be clinically cured, but practically be no better off than before treatment was instituted.
7. By means of a simplified method of producing hyperpyrexia, described previously, the patient with resistant neurosyphilis may receive the benefit of chemotherapy and artificial fever given simultaneously. By this combination of treatment there is a greater opportunity for producing clinical arrest of the process.

450 Sutter Street.

REFERENCE

1. Epstein, Norman N., and Cohen, Maurice: The Effects of Hyperpyrexia Produced by Radiant Heat in Early Syphilis, J. A. M. A., 104:883-889 (March 16), 1935.

DISCUSSION

George S. Johnson, M.D. (Stanford University Hospital, San Francisco).—Doctor Epstein has given an excellent summary of the treatment of neurosyphilis and has, I think, put proper emphasis upon those measures which have the greatest influence upon the neurological manifestations of this disease.

The spinal fluid examination is important, not only in disclosing neuraxis involvement and thereby indicating the necessity of keeping in mind the possibility of further invasion; it is also important for its negative value, giving the patient a security in regard to the subsequent development of neurosyphilis.

The importance of variation in treatment is clearly indicated in this paper. The intensive and uninterrupted use of the arsphenamins and heavy metals over a minimum period of two to three years is clearly indicated. In those resistant cases, the use of special procedures, such as tryparsamid and pyrotherapy, have entirely changed the outlook for these patients. Induced fever has unquestionably established itself as a valuable and, at times, indispensable aid in these cases. Doctor Epstein has made a notable contribution in his simplified procedure for inducing fever.

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Edward Twitchell, M.D. (909 Hyde Street, San Francisco).—Our present knowledge of neurosyphilis really began with Widal, Ravaut and Sicard in 1901, with the study of the cytology and chemistry of the spinal fluid.

It was then discovered that the individual who might be free of any other symptoms of syphilis, might still show a large number of cells in his spinal fluid with increase of globulin.

Later on, when the Wassermann reaction was discovered, it was found positive in the spinal fluid in individuals in whom it might be negative in the blood. From that time on asymptomatic neurosyphilis had a definite place in medicine. This is entertainingly told in the recent monograph by Ravaut, entitled "Une nouvelle syphilis nerveuse."

The two great types of neurosyphilis, meningovascular and parenchymatous, have long appeared to me as comparable to the conditions in a jungle infested by noxious savages. Those living along the banks of the streams could easily be reached and destroyed by expeditions sent up the watercourses. Those, however, who had abandoned the streams and lived in the dense thicket away from the streams were reached with difficulty, and by the time the attackers had come up to them the attackers were too exhausted to make much of an offensive. Hence, the most effective way of dealing with the bush-dwelling savage was to set fire to the bush and burn or smoke him out.

This is practically the principle of therapy devised by Wagner-Jauregg. The syphilis which fails to respond to chemotherapy will respond to pyretotherapy. It is doubtful if cases of neurosyphilis should ever be dismissed without being subjected to some degree of pyretotherapy.

If it be not considered advisable to use malaria, with its undoubted dangers, one might use the other forms, notably that for which we are indebted to Doctor Epstein himself, and which I regard as a most important therapeutic advance.

Following such pyretotherapy, one should use the usual arsenicals, and particularly tryparsamid, which has penetrating power which the others lack, even though the effects are feebler.

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Kendall Frost, M. D. (1930 Wilshire Boulevard, Los Angeles).—I have no new thought to bring into this discussion. Doctor Epstein's paper is a summary, and covers the ground so clearly that it only remains to emphasize certain points.

Particularly important is his advice to give adequate chemotherapy before rushing into the use of therapeutic fever. The only exceptions to this are perhaps the cases of acute paresis or optic atrophy.

Pyrotherapy is, at best, a fairly dangerous procedure and should be approached with caution. No patient should receive it without having had a complete medical diagnosis, in addition to his neurologic and serologic one. Then only can the decision be properly made of his fitness for such treatment, and which form of fever production would be best adapted to the situation.

I am inclined to feel that there is not quite the unanimity of opinion regarding the equal efficaciousness of various forms of production of fever. Of course, the majority of experience is with malaria, and other methods of producing high temperature have not been equally successful in all hands. Until we have more data on other methods, for the patient's sake as an individual, I believe he should have malaria unless it is for some reason contraindicated.

PUBLIC HOSPITALS IN CALIFORNIA CANNOT HOSPITALIZE NON-INDIGENT PATIENTS

OPINION OF THE APPELLATE COURT (FOURTH DISTRICT) AFFIRMING DECREE OF INJUNCTION RENDERED BY SUPERIOR COURT JUDGE K. VAN ZANTE

Because of its medical and legal importance and interest to the citizens and medical profession of the State of California, the opinion of the Appellate Court rendered on January 30, 1936, affirming, as modified, the decree of judgment rendered on December 4, 1933, in the Superior Court of Kern County, California, by Judge K. Van Zante is here reprinted.*

Civil No. 1761. Fourth Appellate District.
January 30, 1936

O. P. Goodall, T. M. McNamara, P. J. Cuneo, S. C. Long, H. N. Brown, F. J. Gundry, C. S. Compton, W H. Moore, L. H. Fox, and L. C. McLain, Plaintiffs and Respondents, v. Perry Brite, Stanley Abel, W. R. Woollomes, J. O. Hart, and Charles W. Wimmer, individually and as members of the Board of Supervisors of Kern County, and Kern County, a legal subdivision of the State of California, Defendants and Appellants.

[1] *Constitutional Law—Public Money—Gifts.*—Section 31 of Article IV of the Constitution prohibits cities and counties from making any gifts of public funds and from using public funds for private purposes, and the legislature cannot authorize the use of county funds for any such purpose.

[2] *Id.—Counties—Hospitals.*—While the board of supervisors of a county has the general power to adopt rules and regulations for the operation of a county hospital, that power must be exercised within the limits of their constitutional powers.

[3] *Id.—Public Health—Police Power.* — The promotion of the public health and general welfare of the citizens of a county falls within the powers granted to counties by Section 11 of Article XI of the Constitution.

[4] *Id.—Counties — Hospitals — Public Health — Police Power—Public Money—Gifts.* — The admission and treatment of patients in a county hospital who, either themselves or through legally responsible relatives, can provide themselves with equally efficient care and treament in private institutions in the county does not promote the health and general welfare of the citizens of the county and is not a proper exercise of the police power of that county, but results in the use of public money for private purposes in violation of Section 31 of Article IV of the Constitution.

[5] *Id.—Indigents—Hospitals—Public Health—Police Power.*—A patient in need of hospitalization, who cannot himself, or through legally liable relatives, pay the charges of a private institution, but who can pay something toward his care and treatment in the county hospital, should be admtted to the county hospital because the care of such sick and injured promotes the public health and general welfare of the community in which he lives.

[6] *Id.—Counties—Hospitals—Statutory Construction.*—In this action to enjoin defendant board of supervisors from admitting certain classes of patients to the county hospital, there was no merit in the contention that as the legislature has provided that certain classes of patients in the county hospitals may pay for their care, under the maxim, "Expressio unis est exclusio alterius," the members of no other class who can contribute to their care can be admitted, and that as it is provided that those belonging to certain classes shall be admitted, no others can be received.

[7] *Id.—Hospitals—Emergency.*—In such action, the injunction issued by the trial court should have provided that in cases of accident or sudden illness, or of public disaster, such as fire, earthquake, floods, storms or epidemics, people injured or rendered suddenly ill, and for whom immediate hospitalization is made necessary, should be admitted promptly; but in such cases investigation should be made of their abilities to pay for the services rendered, and the Board of Supervisors should not hesitate to collect the full cost of hospitalization from those able to pay, and from others not able to pay in full, a fair amount, to be determined after an investigation of their resources.

[8] *Id.—Injunction—Statutes.*—In such action, the injunction issued by the trial court was not sufficiently elastic, in that it failed to provide for any contingency arising from changes in state legislation relating to the classes to be admitted and the conditions of admissions to county hospitals.

Appeal by defendants from a judgment of the Superior Court of Kern County, K. Van Zante, Judge, in an action for an injunction. Affirmed as modified.

For Appellants—Thomas Scott, District Attorney; W. A. McGinn, Assistant District Attorney; Borton & Petrini, Special Counsel.

Amici Curiae for Appellants — Nutter & Rutherford, Stephen Dietrich.

For Respondents—Siemon, Claflin & Maas; Hartley F. Peart; Finlayson, Bennett & Morrow.

Amici Curiae for Respondents—Elvon Musick, Howard Burrell, E. Perry Churchill.

The plaintiffs are citizens and taxpayers of the County of Kern. The individual defendants are the members of the Board of Supervisors of the county.

Kern County maintains a hospital for the hospitalization of the sick and injured as well as for the care of the indigent poor and indigent aged of the county. The hospital is a well-equipped institution. With the tacit, if not the express, consent of the supervisors, it is the practice to admit as patients persons well able to pay for hospitalization in private institutions, either themselves or through relatives legally liable for their support, and also, persons who can pay only part of the cost of their hospitalization in the county institution and who obviously cannot pay the higher costs of private hospitalization. The plaintiffs challenged the right of defendants to use county funds to provide hospital care for these two classes of patients except in certain instances where such practice is permitted by statute.

It is freely conceded by counsel for defendants that they have provided hospitalization in the county hospital for these two classes of patients and that they will continue to do so if not enjoined by order of court. It is also admitted that in the past both these classes of patients have been asked to make "donations" toward the cost of their hospitalization; that no charges have been made against them and that no effort has been made to collect from any of them where the donations had not been made. It is also apparent from the evidence that some citizens of Kern County who were financially able to pay for hospitalization and treatment in private institutions had been hospitalized for considerable periods of time in the county hospital without making any payments therefor. The trial court, on ample evidence, found there were sufficient private hospitals in Kern County to satisfactorily care for all cases hospitalized in the county hospital where the patients, or relatives legally liable for their support, could have paid for private hospitalization. Therefore, we do not have presented here any question of the right of a county hospital to receive a patient possessing substantial means where there was no other hospital within a reasonable distance which could afford him proper care and treatment.

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*See also comment on page 146.

Boards of supervisors are given the express power to establish and maintain county hospitals and to provide rules for their government and management. (Sec. 4223, Political Code.) A like power is given them to establish and maintain almshouses and county farms. (Sec. 4224, Political Code.) In Kern County the poor are cared for at the county hospital. Therefore, it is a combination county hospital and almshouse.

Defendants maintain that as the Board of Supervisors of Kern County is given the power to "establish" and "maintain" a county hospital and provide rules for its "government" and "management" the question of who shall be admitted and upon what terms is within the sound discretion of the board and cannot be controlled by injunction. They also urge that Section 11 of Article XI of the Constitution vests in counties police powers which are as broad as those possessed by the state, except where prohibited by statute. From this they argue that as the promotion of the health of the residents of Kern County, as well as the promotion of their general welfare, is one of the principal police powers given under this section they may admit to the hospital any resident of Kern County possessing the necessary qualifications of residence regardless of his ability to pay and without making any charge against him.

We will first consider these questions from the point of view of the admission to the hospital of those patients who either themselves, or through legally liable relatives, are able to secure and pay for hospitalization and treatment in private institutions.

Section 31 of Article IV of the Constitution "took from the legislature the power to give, lend, or authorize the giving or lending of the state's credit, or that of any county, city and county, city, or township, or other political corporation or subdivision of the state, in aid of or to any person, association, or corporation, municipal or otherwise, or to pledge the credit thereof in any manner whatever, for the payment of the liabilities of any individual, association, municipal or other corporation whatever; or to make or authorize the making of any gift of any public money or thing of value to any individual, municipal or other corporation whatever.

"These limitations divested the legislature of all power to make appropriations of money to any private or quasi-public corporation or to make any gift to any municipal or public corporation not under the exclusive control and management of the state. It also derived the legislature of the power to authorize counties to make donations or gifts or pledges of credit to such associations. The Constitution does not give to any department of the state government any power whatever to engage in private business or enterprise, or to manage and control private corporations or quasi-public corporations for private profit, although such corporations may be carrying on enterprises or performing functions which are for general public benefit and which tend to promote the general welfare. Our state government has no such powers." (*People* v. *San Joaquin Valley etc. Assn.*, 151 Cal. 797.)

[1] It has been held that this same section of the Constitution prohibits cities and counties from making any gifts of public funds and of using public funds for private purposes. (*Pacific Mutual Life Ins. Co.* v. *County of San Diego*, 112 Cal. 314; *City of Oakland* v. *Garrison*, 194 Cal. 298; *Chapman* v. *City of Fullerton*, 90 Cal. App. 463.) The legislature cannot authorize the use of county funds for any such purposes. (*Conlin* v. *Board of Supervisors*, 99 Cal. 17; *Conlin* v. *Board of Supervisors*, 114 Cal. 404; *Johnston* v. *County of Sacramento*, 137 Cal. 204.)

[2] It must be conceded that while the board of supervisors has the general power to adopt rules and regulations for the operation of the Kern County hospital, that power must be exercised within the limits of their constitutional powers. It must be further conceded that if their acceptance for hospitalization of patients who, themselves, or through legally liable relatives can provide efficient hospitalization elsewhere, amounts to a gift of public funds to private persons which is prohibited by Section 31 of Article IV of the Constitution, its continuance may be enjoined by the courts.

In discussing the extent of the grant of police powers to municipalities by Section 11 of Article IV of the Constitution the Supreme Court in the case of *Miller* v. *Board of Public Works*, 195 Cal. 477, said: "The police power of a state is an indispensable prerogative of sovereignty and one that is not to be lightly limited. Indeed, even though at times its operation may seem harsh, the imperative necessity for its existence precludes any limitation upon its exercise save that it be not unreasonably and arbitrarily invoked and applied. (*Hadacheck* v. *Sebastian*, 239 U. S. 394, Ann. Cas. 1917B, 927, 60 L. Ed. 348, 36 Sup. Ct. Rep. 143; *District of Columbia* v. *Brooke*, 214 U. S. 138, 149, 53 L. Ed. 941, 29 Sup. Ct. Rep. 560; see, also, Rose's U. S. Notes.) It is not, however, illimitable and the marking and measuring of the extent of its exercise and application is determined by a consideration of the question of whether or not any invocation of that power, in any given case, and as applied to existing conditions, is reasonably necessary to promote the public health, safety, morals (*Hannibal etc. R. R. Co.* v. *Husen*, 95 U. S. 465, 470, 471, 24 L. Ed. 527; *Boston Beer Co.* v. *Massachusetts*, 97 U. S. 25, 24 L. Ed. 989), or general welfare of the people of a community. (*Chicago, B. & Q. Ry. Co.* v. *Illinois*, 200 U. S. 561, 592, 4 Ann. Cas. 1175, 50 L. Ed. 596, 26 Sup. Ct. Rep. 341; see, also, Rose's U. S. Notes.) . . .

"In its inception the police power was closely concerned with the preservation of the public peace, safety, morals, and health without specific regard for 'the general welfare.' The increasing complexity of our civilization and institutions later gave rise to cases wherein the promotion of the public welfare was held by the courts to be a legitimate object for the exercise of the police power. As our civic life has developed so has the definition of 'public welfare' until it has been held to embrace regulations 'to promote the economic welfare, public convenience and general prosperity of the community.' (*Chicago, B. & Q. R. R. Co.* v. *Illinois*, supra.) Thus it is apparent that the police power is not a circumscribed prerogative, but is elastic and, in keeping with the growth of knowledge and the belief in the popular mind of the need for its application, capable of expansion to meet existing conditions of modern life and thereby keep pace with the social, economic, moral, and intellectual evolution of the human race. In brief, 'there is nothing known to the law that keeps more in step with human progress than does the exercise of this power.' (*Streich* v. *Board of Education*, supra), and that power 'may be put forth in aid of what is sanctioned by usage, or held by the prevailing morality or strong and preponderant opinion to be greatly and immediately necessary to the public welfare.' (*Noble State Bank* v. *Haskell*, 219 U. S. 104, Ann. Cas. 1912A, 487, 32 L. R. A. [N. S.] 1062, 55 L. Ed. 112, 31 Sup. Ct. Rep. 186; see, also, Rose's U. S. Notes.)" See, also, *Coelho* v. *Truckell*, 82 Cal. App. Dec. 639.

In *Jardine* v. *City of Pasadena*, 199 Cal. 64, it is said: "The selection of the hospital site was a matter within the legislative discretion of the board of directors of the city, and unless in the exercise of that discretion the board acted arbitrarily and unreasonably, its action ought not to be enjoined.

"'The location, establishment and maintenance of such an institution is clearly within the scope of the police power of the city. General police authority to protect the public health is conferred upon the city by Section 11 of Article XI of the state Constitution, which provides that "any county, city, town, or township may make and enforce within its limits all such local, police, sanitary and other regulations as are not in conflict with general laws."'"

[3] It follows as an inescapable conclusion from what has been said in the cases from which we have quoted that the promotion of the public health and general welfare of the citizens of Kern County falls within the powers granted to the county by Section 11 of Article XI of the Constitution. Does the hospitalization in the county hospital of those able to secure efficient hospitalization in other institutions promote the health and general welfare of the citizens of Kern County? The answer to this question will determine whether that policy falls within the protection of the provisions of Section 11, and also whether the expenditure of public funds for that purpose amounts to a use of them for a public purpose or gifts to private persons. This last follows, because, if the use of the money for the purposes specified promotes the health or general welfare of the people of Kern County, that in itself should be held to be expenditures for a public purpose and not gifts to private persons.

[4] In approaching this question it should be borne in mind that the record establishes the fact that there are excellent privately owned hospitals in Kern County with sufficient facilities to care for those who can pay for their care and treatment. It seems, therefore, that the question

is not so much the preservation of the health and general welfare of the financially able citizens of the county as it is one of the preservation of their private resources. If a patient can be given the same and equally efficient care and treatment in a private hospital that he can receive in the county institution his choice of a hospital does not determine his chances of recovery but merely the amount he must pay to be healed, and whether he will pay the established charge of a private institution, or nothing or the small donation hoped for by the county hospital. The preservation of the health and general welfare of the citizens of the county is a question of the prevention and cure of disease generally, and not the accomplishment of these ends by any particular means or in any particular institution. We, therefore, conclude that the admission and treatment of patients in the county hospital who, either themselves or through legally responsible relatives, can provide themselves with equally efficient care and treatment in private institutions does not promote the health and general welfare of the citizens of Kern County and is not a proper exercise of the police power of that county and results in the use of public money for private purposes.

We have further facts in the record bearing upon the question of the use of public money for private purposes. The defendants estimated the cost of hospitalization in the county hospital at three dollars per day per patient. In arriving at this figure no account was taken of a capital investment of several hundred thousand dollars, nor of depreciation. The amount of daily cost was reached by taking the total number at the hospital, which included the dependent aged, as the divisor, and the total spent for the operation of the hospital as the dividend, and dividing the result thus obtained by the number of days in the year. It is obvious that the daily cost of caring for an aged poor person who does not require hospitalization would not be as great as that of a strictly hospital patient. It is also obvious that the average daily cost of care and treatment of a patient hospitalized for a simple illness would not be as great as that of a serious operative case. The method used in reaching the daily cost per patient was so inaccurate and unbusinesslike that the result could not reflect the true daily cost to the county of any one patient. Thus must have resulted in gifts of county money to at least those patients who paid nothing and to those who paid only three dollars per day and who were serious operative cases.

[5] When we approach the question of those patients who are admitted to the county hospital and who cannot pay for hospitalization in private institutions but who can pay something toward their care and treatment, we have an entirely different situation from the one we have been considering. We must bear in mind that providing hospital facilities to those legally entitled thereto is a proper exercise of the police power of the county (*Jardine* v. *City of Pasadena*, supra) as it tends to promote the public health and general welfare of the citizens of the county. (*Miller* v. *Board of Public Works*, supra.) In the second phase of the case we have the problem of the care of the health and the promotion of the general welfare of what we may term the deserving needy but not the pauper class of the county. This class must be hospitalized at the county hospital or permitted to suffer without proper care. It is common knowledge that this class composes a considerable proportion of the body of the citizenship of any county. As a rule those composing it are honest, industrious, and often thrifty people whose welfare should be of first concern to any governmental agency. It is admitted that a resident pauper must be hospitalized at public expense. This is a matter of pure humanity and no one, solely because of poverty, should be permitted to suffer because of lack of funds. The same reasons apply with greater force to the class we are considering. We can visualize the head of a family who has employment and can keep it—an honest worker, frugal and thrifty, who supports his family, educates his children and has perhaps acquired an equity in a modest home. If he is injured, not in the course of his employment, the family income stops and he may require hospitalization and may lack the funds with which to enter a private institution. Must it be said that he should be refused admission to the county hospital because he is not a pauper when if he were a pauper he would be admitted without question? This would amount to the penalizing of honest industry, thrift and independence and would place a premium on indolence and shiftlessness. Under the principles of humanitarianism, and in the interest of a sound policy, we are compelled to hold that a patient in need of hospitalization, who cannot himself, or through legally liable relatives, pay the charges of a private institution, should be admitted to the county hospital because the care of such sick or injured promotes the public health and general welfare of the community in which he lives.

If it were necessary we could find another satisfactory reason for the admission of this class of patients to the county hospital. It is admitted that indigent persons are to be admitted when in need of hospitalization. As far as we know the term "indigent" has not been defined in California in so far as its use in connection with admissions to county hospitals is concerned. It has been defined in other states chiefly in connection with the admission of the indigent insane to hospitals. The term when thus used has been held to include persons with insufficient means to pay for hospitalization after providing for those who legally claim their support. (*Depue* v. *District of Columbia*, 45 App. D. C. 54; *In re Hybart*, 119 N. C. 359, 25 S. E. 963; *Mass. Gen. Hospital* v. *Inhabitants of Belmont*, 233 Mass. 190, 124 N. E. 21; *People* v. *Board of Supervisors*, 121 N. Y. 345, 24 N. E. 830.) Applying this definition to the instant case, we hold that the word "indigent," when used in connection with admissions to county hospitals, includes an inhabitant of a county who possesses the required qualifications of residence, and who has insufficient means to pay for his maintenance in a private hospital after providing for those who legally claim his support.

[6] Under the maxim, "Expressio unis est exclusio alterius," it is urged that as the legislature has provided that certain classes of patients in the county hospitals may pay for their care, the members of no other class who can contribute to their care can be admitted, and, further, that as it is provided that those belonging to certain classes shall be admitted, no others can be received.

We cannot agree with this argument. Boards of supervisors are given broad powers in providing for the establishment and maintenance of county hospitals and in prescribing rules for their government and management. (Sec. 4223, Political Code.) The word "management" has been frequently defined when used in legal phraseology. When used in a statute giving the husband management and control over his wife's property it has been held to mean that it gave him the power to invest her money. (*Sencerbox* v. *First National Bank*, 14 Idaho 95, 93 Pac. 369.) When used in the title of an act relating to reform schools it was held to include provisions in the act providing for the committing of certain juveniles to the schools. (*In re Sanders*, 53 Kan. 191, 36 Pac. 348.) See, also, *Watson* v. *Cleveland*, 21 Conn. 538; *Commissioners of the Sinking Fund* v. *Walker*, 7 Miss. [6 How.] 143; *In re Brennan's Will*, 251 N. Y. 39, 166 N. E. 797; *City of Topeka* v. *Independence Ind. Co.*, 130 Kan. 650, 287 Pac. 708; *Stagway* v. *Riker*, 84 N. J. Law 201, 86 Atl. 440. When a board of supervisors is given management of a county hospital, that body is given the power to adopt rules for the admission of patients, provided, of course, that they must admit those entitled by law to enter and cannot admit those whose reception is prohibited by law of the Constitution. In their rules of admission they should have the power to provide for the payment for care by those not financially able to secure hospitalization in a private institution, the amount to be paid to be determined to its maximum by the cost to the county of hospitalization of each individual patient and charged to the patient on his ability to pay. In the administration of public funds the supervisors are acting as trustees and they should so administer those funds as to lighten the taxpayers' burden as much as possible.

[7] Another class of patients which should be admitted to county hospitals deserves our consideration. In cases of public disaster, such as fire, earthquake, floods, storms, or epidemics, people may be injured or rendered suddenly ill and immediate hospitalization may be necessary to save life. The same is true in cases of accident or sudden illness. In such cases, delays in admissions to permit investigations of the financial conditions of the patients might cause loss of life. Such patients should be admitted promptly, investigation of their abilities to pay should follow. Ordinary humanity could dictate no other course. In such cases boards of supervisors should not hesitate to collect the full cost of hospitalization from those able to pay, and from others not able to pay in full, a fair amount, to be determined after an investigation of their resources. We have stricken clause "i" from the decree of the trial court and have added another under the same letter to provide for such cases.

[8] The decree in this case is not elastic. Over a period of years the legislature has changed and increased the classes to be admitted to county hospitals. That body may continue with such legislation and may provide for the admission of new classes, or restrict those now admitted, or place new conditions upon admissions. To take care of this contingency we have added clause "j" to the decree.

Defendants complain that the decree as rendered is uncertain in several particulars. Plaintiffs in effect admit the charge by proposing amendments to it. We have studied the decree as amended by them and have concluded that it substantially meets the objections of defendants. On our own motion we have stricken one paragraph which plaintiffs proposed to retain as we regard it as surplusage.

It is ordered that the decree of injunction rendered by the trial court on December 4, 1933, be modified by striking therefrom the words, letters and figures not appearing in the decree of injunction hereinafter set forth and adding the words, letters and figures appearing in the decree of injunction hereinafter set forth which do not appear in the said decree signed by the trial judge so that the decree of injunction in this case shall read as follows: (Following the title of the court and cause.)

"The above-entitled matter having been heretofore heard and determined by the undersigned Judge of the Superior Court of the State of California, written findings of fact and conclusions of law having been heretofore duly and regularly signed and filed herein ordering judgment in favor of the above-named plaintiffs and against the above-named defendants as hereinafter given and made, and the case being in all respects ready for final judgment and decree:

"It is therefore ordered, adjudged and decreed that the defendants Perry Brite, Stanley Abel, W. R. Woollomes, J. C. Hart, Charles W. Wimmer, individually, and as members of the Board of Supervisors of Kern County, and Kern County, a legal subdivision of the State of California, and each of them, and every officer, deputy, agent, appointee, subordinate, servant or employee of the above-named defendants, or either or any of them, and particularly and especially the officers, deputies, agents, employees, appointees, servants, doctors, superintendents, heads of departments, internes, nurses, and assistants, and all other persons acting under defendants or any of them in any matter relating to the operation, maintenance, administration, or conduct of that certain County Hospital of the County of Kern known as the Kern General Hospital, be, and each of such persons is, and all of them are hereby forever permanently restrained, enjoined and commanded to desist from admitting to and receiving as patients of, caring for, curing, treating, boarding, nursing, furnishing food or supplies or lodging to, or hospitalizing in, said Kern General Hospital, or at or in any out-patient clinic thereof, any person who, after due inquiry and investigation, is not found to be an indigent person as herein defined, or a dependent or partially dependent person in case of emergency, or who is found, after due inquiry and investigation, to be a person who is himself, or has a relative or relatives legally liable for his support, able to pay for and obtain proper and necessary medical or surgical or hospital care or treatment or services for himself elsewhere than in the county hospital except as hereinafter specified. The following should be admitted: (*a*) an indigent sick or dependent poor person; (*b*) a needy sick and dependent or partially dependent citizen in case of emergency; (*c*) a psychopath, narcotic addict or habitual inebriate temporarily in custody; (*d*) a physically defective and physically handicapped person under the age of eighteen years when the parents or guardian of such person are not financially able to secure proper care or treatment and when such person's admission and treatment has been duly authorized in the manner provided by law; (*e*) a person in the active stages of tuberculosis, in wards established for the treatment of such persons, who is able to pay for such treatment and who, when able to pay, is required to pay for such treatment; (*f*) a person to be quarantined or isolated in the county hospital with a contagious, communicable or infectious disease; (*g*) a prisoner confined to any city or county jail who requires medical or surgical treatment necessitating hospitalization where such treatment cannot be furnished or supplied at such jail when the Superior Court of the county shall have ordered the removal of such prisoner to the county hospital and said prisoner elects not to furnish such treatment at his own expense; (*h*) a county employee injured in the course of his employment by the county when hospitalization is reasonably required to cure and relieve the effects of such injury; (*i*) a person in need of immediate hospitalization on account of accident or sudden sickness or injury or by reason of sickness or injury caused by or arising in a sudden public emergency or calamity or disaster. Provided, (*j*) Nothing in this decree shall be construed as restraining defendants from obeying or carrying out or giving effect to any law that may be passed hereafter relating to the hospitalization of patients in county hospitals which may affect the hospital in Kern County.

"It is further ordered that plaintiffs have their costs herein expended taxed at $306.62.

"Done in open court this fourth day of December, 1933.
"K. Van Zante, Judge of the Superior Court."

As so modified the judgment is affirmed. Each party will pay their own costs on appeal.

Marks, J.

We concur:
Barnard, P. J.
Jennings, J.

THE LURE OF MEDICAL HISTORY†

MOSES MAIMONIDES*

GREAT PHYSICIAN, SCIENTIST, AND PHILOSOPHER

By Frank H. Rodin, M.D.
San Francisco

THROUGHOUT the world the eight hundredth anniversary of the birth of Maimonides has been recently celebrated. Moses Maimonides, or as he is more commonly known among the Jews from the initial consonants of his name (Rabbi Moses Ben Maimon) the Rambam, was born in the Spanish city of Cordova, on the fourteenth of the Hebrew month Nissan (March 30), 1135 C. E. In Arabic literature he is known as Abu 'Imran Musa ben Maimun ibn 'Abd Allah. He was the greatest Jewish philosopher and physician of the Middle Ages, and also the most eminent religious authority and the outstanding physician of his time. Mohammedanism and Christianity were influenced by Maimonides' thought, and many thinkers drew consciously and directly from the inspiration of his works.

CORDOVA AS A SEAT OF LEARNING

The memorable battle of Jerez de la Frontera, fought in 711, affected the destiny of the Spanish people and indirectly the fate of the Jews who have found a home on the Pyrenean peninsula. Cordova was the most outstanding city during the rule of the Moslems, and under the liberal rule of the Mohammeds, Cordova became a great city, famous both for its commerce and learning. From all parts of the world scholars came to Cordova, where Jews, Christians, and Moors lived in peace. A friendly rivalry existed in the literary and philosophical endeavors of the various people who were subject only to the liberal Moorish rule. It was there that the Jewish people in 960 established their first academy. In the twelfth century, when Maimonides was born, Cordova had already passed the height of its glory, but it was prosperous under the reign of the noble Abderhaman.

ANCESTRY OF MAIMONIDES

Maimonides was the son of the celebrated Rabbi Maimon of Cordova, who was a learned man, and who could trace his descent from the House of King David. His mother, the daughter of a poor craftsman, died at the birth of Moses. His father taught him the Torah (Bible) and Talmud. At an early age he received instruction from the most distinguished Arabic teachers, who dominated Spain at that time, and he learned mathematics, astronomy, physiology, the natural sciences, and especially the science and art of medicine. His father endeavored to give him the most precious of wealth, which is the ideal of every Jewish parent: a complete and thorough all around education.

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† A Twenty-five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* In honor of the octocentennial celebration of his birthday.

From the Department of Ophthalmology of the Mount Zion Hospital.

MIGRATION OF THE MAIMUNI FAMILY

The peaceful life of the Maimuni was early disturbed by the Almohades, a wild tribe of Arabs from North Africa, who captured Cordova in 1148 and offered the Jews and Christians the choice of conversion to Mohammedanism or death. The Jews chose, as they have done throughout the ages and as they are doing now, to emigrate. The Maimuni family left Cordova and wandered through Spain, and finally settled, in 1159, in the city of Fez. Caliph Abdelmummen, who ruled Fez, required an outward observance of Moslem customs only, but did not interfere with the private life of his subjects. Here Maimonides and his family remained for a number of years and continued his religious studies.

The practice of their religion in secret did not appeal to the Maimuni family, and in time the life of the Jews became unsafe in Fez. Judah ha-Kohen ibn Shoshan, who was at the head of the Jewish community in Fez, and a friend of Maimonides, was found practicing Judaism. He was seized and executed. But for the influence of a friend, the Arabic poet and Moslem theologian, Abu al-Arab al-Mu'ishah, Maimonides would have had a similar fate. The family of Maimon once more moved and in 1165 came to Palestine.

Butchery by the crusaders and others had reduced the number of Jews in Palestine at that time to only a few thousand families. As there was very little possibility for intellectual comradeship, and the memories of the massacres being strong in his mind, Maimonides moved to Egypt. At that time there was a large Jewish population in Egypt, especially in Alexandria, in el-Kahira (new Cairo) and in Fostat or Fustat (old Cairo). Maimonides settled in the city of Fostat, and there, at the age of thirty, he established a permanent home.

LIFE IN EGYPT

Sorrow attended Maimonides on his migration to Egypt. First, his father died soon upon his arrival. This was soon followed by the loss of his elder brother, David, who was shipwrecked and drowned in the Indian Ocean, losing his fortune and considerable money entrusted to him by other traders. David, a dealer in precious stones, was the financial support of the entire family, and with his death Maimonides was left penniless and without the immediate means of earning a livelihood. He was, furthermore, burdened with the support of David's widow and orphaned daughter.

Maimonides denounced those who lived for gain by serving the Synagogue or Jewry by means of their learning. As it has been frequently the case with other learned Jews, the Rabbi, the healer of the soul, became the healer of the body. Religious leaders have frequently been the practitioners of medicine. In California, the Franciscans, who built the missions, also administered medical aid to both the Indians and the Spaniards. The first American medical publication was published in Massachusetts in 1678 by Dr. Thomas Thacher, a clergyman, who was also an Arabic scholar and a composer of a Hebrew lexicon.

MEDICINE AN OLD PROFESSION AMONG THE JEWS

Medicine is an old profession among the Jews. There is an unbroken line of Jewish physicians ever since the days when Jesus ben Sirach (second century B. C. E.) offered this advice:

> "Honor a physician with the honor due unto him,
> For the uses which ye may have of him:
> For the Lord hath created him. . . .
> The skill of the physician shall lift up his head:
> And in the sight of great men he shall be in admiration.
> The Lord hath created medicines out of the earth;
> And he that is wise will not abhor them. . . .
> My son, in thy sickness be not negligent:
> But pray unto the Lord,
> And he will make thee whole. . . .
> Then give place to thy physician,
> For the Lord hath created him;
> Let him not go from thee, for thou hast need of him.
> There is a time when in their hands there is good success."
> Ecclesiasticus, 38:1-13.

MAIMONIDES AS A PHYSICIAN IN EGYPT

Naturally, at first Maimonides was not well known, and hence his practice was not extensive. He therefore gave, in the meantime, public lectures on Jewish philosophical and religious subjects. The Jews in Egypt had a certain degree of self-government, and at the head of it was their own Nagid (Prince), who administered the internal affairs of the Jewish community. When Maimonides arrived in Egypt there was a spiritual schism, a frequent occurrence in Jewish life. A bitter strife existed among the Jewish people. It was not long before he became a leader over the affairs of the Jewish people. He became the Nagid; and as the official head of the Egyptian Jewish communities he united them, and soon the Jews from all over the world sought his advice.

His fame as a physician spread, and he gained the favor of the vizir Alfadhel; and through him came to the notice of the outstanding figure of the Middle Ages, the Sultan Salahin Jussuf ben Ajub, or as he is better known, Saladin.

It was during this period that Egypt reached one of her periods of greatness under Saladin. The last of the Fatimid Caliphs sat on the throne of Egypt (the Fatimids claimed descent from Fatima, Mohammed's daughter). In 1164, Egypt was invaded by Shirkuh, who was Nureddin's most brilliant general and military genius. In 1169 Shirkuh, with the aid of Saladin, conquered Egypt but died soon after. Saladin (1138-1193) was now appointed vizir.

Saladin appointed Maimonides as his court physician, a position which he held for the rest of his life, under Saladin and his successor, Alfadhel. He was a very busy practitioner, as a letter to one of his pupils, R. Juda Ibn Tibbon, shows:

> "With respect to your wishes to come here to me, I cannot but say how greatly your visit would delight me, for I truly long to communicate with you and would anticipate our meeting with even greater joy than you. Yet I must advise you not to expose yourself by the perils of the voyage, for beyond seeing me, and my doing all I could to honor you, you would not derive any advantage

from your visit. Do not expect to be able to confer with me on any scientific subject for even one hour either by day or by night; for the following is my daily occupation: I dwell in Mizr (Fostat) and the Sultan resides at Kahira; those two places are two Sabbath days' journey (one and a half miles) distant from each other. My duties to the Sultan are very heavy. I am obliged to visit him every day, early in the morning and when he, or any of his children, or any of the inmates of his harem are indisposed, I dare not quit Kahira, but must stay during the greater part of the day in the palace. It also frequently happens that one or two of the officers fall sick, and I must attend to their healing. Hence, as a rule, I repair to Kahira very early in the day and even if nothing unusual happens, I do not return to Mizr until the afternoon. Then I am almost dying with hunger. I find the antechambers filled with people, both Jews and Gentiles, nobles and common people, judges and bailiffs, friends and foes—a mixed multitude who await the time of my return. I dismount from my animal, wash my hands, go forth to my patients, and entreat them to bear with me while I partake of some light refreshment, the only meal I take in twenty-four hours. Then I go forth to attend to my patients, write prescriptions and directions for their several ailments. Patients go in and out until nightfall, and sometimes even, I solemnly assure you, until two hours and more in the night. I converse with them, and prescribe for them while lying down from sheer fatigue; and when night falls, I am so exhausted that I can scarcely speak. In consequence of this, no Israelite can have any private interview with me, except on Sabbath Day. On that day the whole congregation, or at least the majority, come unto me after the morning service, when I instruct them as to their proceedings during the whole week; we stay together a little until noon, when they depart. Some of them return and read with me after the afternoon service until evening prayers. In this manner I spend the day. I have related to you only a part of what you would see if you were to visit me."

OUTSTANDING PHYSICIAN OF THE EAST

Maimonides became the outstanding physician of the East and the leader of the Jewish people over the world. He was called the "eagle of physicians," and "lumen captivitatis," and "Moses Ægyptius."

Of his matrimonial life little is known. He had a daughter and a son. His son, Abraham, was also a physician and succeeded his father in high positions at the sultan's court.

Maimonides lived to the age of sixty-nine. He died on the twentieth day of the Hebrew month Teves (December 13), 1204 C. E. For three days the entire population, Jews and non-Jews in Fostat, were in mourning. In Palestine a fast was proclaimed. He was buried in Tiberias, in Palestine, and his tomb became a place of pilgrimage.

MAIMONIDES' WORKS

The Jew has always expressed himself in the language of the country in which he lives, and in Maimonides' time the language of most of the educated Jews in the Moslem possessions was Arabic. Maimonides wrote all his works in Arabic, with the exception of the *Mishneh Torah* (The "Commentary on the Mishnah" and the "Guide" were written in Arabic, but in Hebrew characters). However, all of his writings were promptly translated into other languages and, of course, into Hebrew. It is, therefore, natural that Hebrew translations of Maimonides are better known than the original Arabic. There are still a number of his works in the Arabic remaining untranslated.

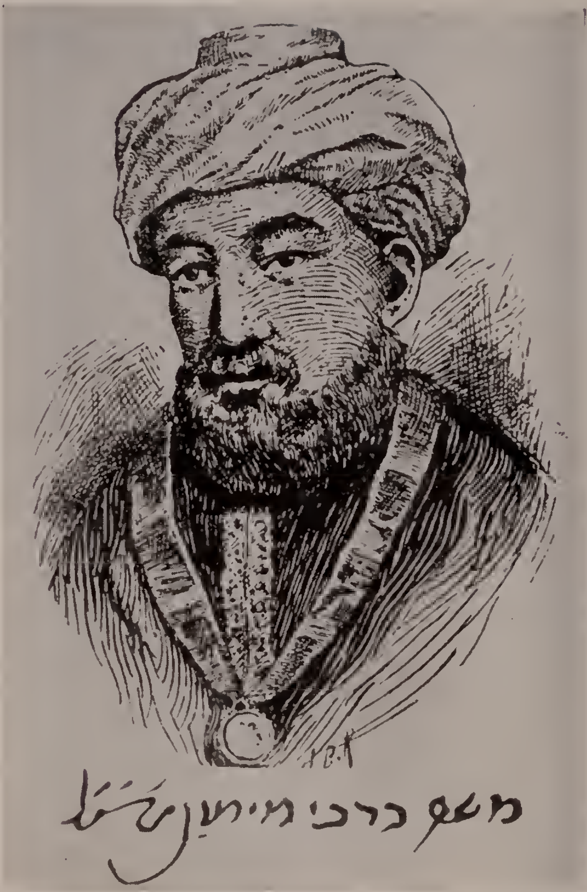

Fig. 1.—Traditional portrait of Maimonides, with autograph.

Maimonides' writing can be roughly divided into two categories: (*a*) Rabbinical and philosophical, and (*b*) scientific, mainly medical.

RABBINICAL AND PHILOSOPHICAL WRITINGS

It is difficult to give a fair estimate of Maimonides as a physician without some reference to his other writings, as the latter not only reflect his personality, but also contain medical matters especially dealing with anatomy and hygiene. While at Fez he wrote his great work, the *Pirush ha-Mishnayoth,* the Commentary on the Mishnah, which is the legal part of the Talmud. The Mishnah is regarded, next to the Bible, as the holiest of books, but its contents are difficult to understand. Maimonides successfully interpreted the Mishnah. We find him pleading for progressive scientific investigation: "A physician," he says in the Commentary on the Mishnah, "should begin with simple treatments trying to cure by diet before he administers drugs." "Like unto a murderer," he writes, "is the physician who refuses to tender his assistance in time of necessity, or who practices without due study of the ailment which he is treating."

His most famous philosophical work is the *Dalalat al-Ha'irin,* or Guide for the Perplexed, which he completed in 1187-1189. Although it was written in Arabic, he used Hebrew characters. In this work he attempts to bring peace and comfort to the perplexed, and to reconcile the perpetual conflict between faith and reason. "It is our purpose and our duty," he says, "to reconcile the apparent contradiction between reason and religion." He also tried to reconcile the philosophy of Aristotle with Jewish theology. To some degree he took a stand against the fundamentalism of the Bible and he pointed out, as Gershenfeld states: "That philosophy and science did not begin, nor did they end in the Scriptures and Talmud." Of course, such a view caused his condemnation by the orthodox, who claimed he was a destroyer of Judaism, while his followers considered him a liberalizer of Judaism. For many years, even after his death, the controversy continued. The "Guide," being controversial, acted as a stimulant in keeping alive philosophical ideas and studies for many centuries, and greatly influenced the ideas of later philosophers.

Another famous work is the *Mishneh Torah* or Double of the Torah (Repetition of the Law), which was the first complete digest, classification and codification of all Mosaic and Rabbinical laws. It is an encyclopedic work, and next to the Bible is considered the greatest work in the Jewish literature. In the *Mishneh Torah* Rambam develops a complete system of practical hygiene, which compares favorably with the modern conception of hygiene. He discusses fully the question of diet, the value of the various foods, the effect of the seasons, the care of the bowels, and the importance of proper sleep and exercise. He feels that overeating, alcohol, sexual excesses, and lack of exercise are responsible for many diseases. Attention to the simple rules of health will maintain good health.

Maimonides points out that for any town to be fit to dwell in, there should be: (1) a proficient physician, (2) a proficient surgeon, (3) proper bathing facilities, (4) proper sewage, (5) a fresh water supply, (6) a place of worship, (7) a proper school, (8) a scribe or notary public, (9) a court of justice, and (10) a charity organization. This is an ideal requisition even in this modern age.

MEDICAL WORKS

All his medical works were written in Arabic. It is natural that Maimonides should draw heavily from Galen's writings, since Galen was the standard medical authority among the Arabs at that time. However, his writings are enriched by his extensive personal observations and by actual experimentation. In addition to Galen he had studied Hippocrates' works.

His most popular medical work, known as Moses' Aphorism or Moses' Medical Aphorism or Principles, was *Kitab al-Fusul fi-al-Tibb,* and known in Hebrew as *Pirque Moshen,* written about 1190, when Maimonides was about fifty-five years of age. This work covers practically the whole field of medicine, the chapters alone showing how extensively the subject was treated. Essays on hygiene were written at the instigation of Sultan Alfadhel, Saladin's eldest son. It is known as *Makala fi-Tadbir al-Sihha,* and is composed of four books on diet and personal hygiene. Maimonides advised that we preserve our health in proportion of our abstinence from overeating and other excesses. He states that a pure moral life will lengthen one's days, while an impure life will shorten them. One should try to develop perfect self-control.

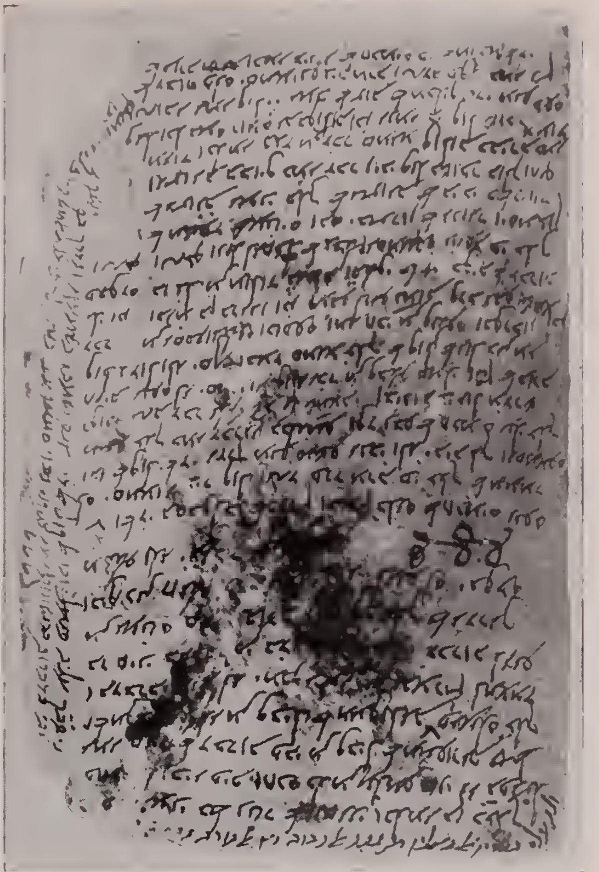

Fig. 2.—Holograph (?) draft of the "Dalalat al-Ha'irin" of Maimonides, Arabic in Hebrew characters. (From the Cairo Genizah.)

His book on poisons, *Al-Sumum wal-Mutaharriz Min al-Adwiyyah al-Kitalah,* also known as *Al-Makalah al-Fadiliyyah,* is in two volumes, and deals with various poisons and their antidotes. Egypt was infested with various poisonous animals, such as scorpions, spiders, snakes, mad dogs, etc. Maimonides discusses the poisons of these various animals, and also the poisonous plants, such as hyoscyamus, mandragora, cantharides, mushrooms, toadstools, etc. It is interesting to note that he observes that the incubation period of rabies was a lengthy one, and he states that the bite of a mad dog is to be feared, while the bite of a healthy dog is of no consequence. In the case of dog-bites, he states humorously: "Much depends upon the general health of the dog."

His directions for the treatment of poisonous wounds have a modern touch:

> "The first thing to do is to apply a tight band above the bitten part so as to prevent the poison from gaining entrance to the body. While this is being done, an assistant should make incisions in and about the wound, and then, after rinsing one's mouth with oil, or with oil and wine, the wound should be thoroughly sucked, being careful to spit out everything taken into the mouth. He who sucks the wound should have no sore places in the mouth nor any carious teeth. Should sucking be impossible, cupping may be resorted to."

Maimonides wrote two treatises on sex. This work is known as *Makalah fi al-Jama'ah*, and was dedicated to the nephew of Saladin, Malik al-Mustafir, Sultan of Hamat. There he discusses the whole problem of sex, sexual intercourse, abstinence, aphrodisiacs and anaphrodisiacs, etc. "When erection," he writes, "occurs in a natural and unconscious manner, and when after directing one's thoughts toward other subjects, one feels the erection persists, and if there is a sluggish sensation in the region of the kidneys, and the cords of the testicles are tightened and the flesh is warm, then one needs to have sexual intercourse, and it is hygienic to perform the act." He further asserts, that coitus will not be fruitful if performed in a sitting posture or standing.

In his work on asthma, *Makala fi al-Rabw*, he discusses the diet and climate best suited for asthmatics. There is also a discussion on the climate and food of various countries.

Maimonides wrote a good commentary on Hippocrates' Aphorisms and, besides, an extract from Galenic writings. He recommends only simple remedies and usually those which he himself tested.

Maimonides practiced medicine with religious fervor, considering it a sacred and holy calling, which indeed it is. This he expresses well in a letter to Jonathan of Lunel: "Although from my boyhood the Torah was betrothed to me, and continues to hold my heart as the wife of my youth, in whose love I find a constant delight, strange women whom I first took into my house as her handmaids become her rivals, and absorb a portion of my time." This strange woman was Medicine. For, as Robinson states: "Medicine is a jealous and absorbing wife, demanding wholehearted fidelity, permitting a little straying only that the wanderer may return with more eagerness to the legitimate consort, not granting her rewards to mortals who seek her for pastime or for bread, but whispering her secrets to those who slave with joy for her sake alone."

According to Maimonides, the purpose of medicine was: "To teach humanity the causes of ill health, the correct dietetic hygiene, the methods of making the body capable of useful work, how to prolong life, and how to avoid disease. It thus directly elevates the human being to a higher moral plane where the pursuit of Truth is possible, and where the happiness of the Soul is obtainable"—a definition of medicine which is still applicable, and which is the ideal of true medical research and the dream of those who still find idealism in the practice of medicine, even in these days!

TRIBUTE TO MAIMONIDES BY AN ARABIC POET

The greatness of Maimonides as a physician was well recognized, and the Arabic poet and cadi, Al-Sa'id ibn Surat al-Mulk sang it in estatic verse, which, translated into English, is as follows:

Galen's art healed only the body,
But Abu 'Imran's (Maimonides), the body and the soul.
With his wisdom he could heal all the sickness of ignorance.
If the moon would submit to his art,
He would deliver her of her spots at the time of full moon,
Cure her of her periodic defects,
And at the time of her conjunction save her from her waning.

IN CONCLUSION

Maimonides gave the world the Jewish ideal of a physician!

Both Hebrews and Arabians have a common saying:

"Mimoshe we' ad Moshe lo kom k'Moshe,"—

"From Moses the Lawgiver until Moses ben Maimon, there was none like Moses."

* * *

Among the many valuable manuscripts possessed by the Sutro branch of the California State Library in San Francisco, there are many scrolls upon which the Pentateuch is inscribed and which are of undoubted antiquity. One of these scrolls is supposed to be the one mentioned by Maimonides and having been written by himself.

In a passage from the *Mishneh Torah*, Maimonides speaks as follows:

> "The scroll of the law which I myself have written contains 226 columns of 51 lines each; the width of each column is four fingers (taking the Ezba as the width of the knuckle of the middle finger). The width of the columns on which the Song of the Sea and the Songs of Warning are written is six fingers. The length of the whole scroll is 1,366 fingers. The remaining six fingers—after deducting the quantum of 226 × 6 + 2 × 2—are for marginal space and the end of the scroll. The hides on which the scroll is written are buckskins."

Roubin, who made a careful study of the manuscripts, is of the opinion that the Sutro Scroll in question corresponds in every detail with these ritual suggestions.*

490 Post Street.

CLINICAL NOTES AND CASE REPORTS

STONE FORMATION IN THE UPPER URINARY TRACT

By S. I. Movitt, M.D.
Los Angeles

The factors of stone formation are as follows: (1) The precipitation of certain salts that are in the urine. (2) The parts played by the colloids of the urine, which maintain the balance of solubility of these salts. (3) Infection of the urinary tract. (4) Stasis of the urine.

Other factors, like heredity and geographical distribution, are interesting from a statistical viewpoint, but are too indefinite to form a certain basis for etiology of stones.

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* Note: Some Arabic scholar may question the spelling of the Arabic words in the text. When the publisher's proofreader asked the famous British soldier, Thomas Edward Lawrence, about the inconsistencies of spelling in the Arabic names given in his book, "Revolt in the Desert," he replied that Arabic names will not go into English exactly, due to the fact that the Arabic consonants and vowels vary from district to district. To the proofreader's observations as to the variations: "Slip 20. Nuri, Emir of the Ruwalla, belongs to the 'chief family of the Rualla'. On slip 33, 'Rualla horse,' and slip 39, 'killed on Ruelli'. In all later slips, 'Rualla'," Lawrence answered, "should have also used 'Ruwala' and 'Ruala'."

Of the four above-mentioned factors we can readily advise the proper steps to diminish or abolish altogether the local infection, and suggest the proper remedy to relieve the stasis. As to the colloids, we are still almost wholly in the dark; perhaps here, eventually, will be found the keynote of stone formation, but so far all we know, as to their composition and character, is that they affect the surface tension of the urine. Now there remains the question of precipitation of salts as one of the causative factors of stone formation.

The solubility and excess precipitation of salts are very different in water and in urine, and are governed not by the same law in these two: this is due to the colloid bodies present in urine. The old advice, to prevent reformation of stones by drinking distilled water, is based only on the idea of eliminating the salts ordinarily present in the water; but the small quantity of these salts taken into the body in solution in ordinary water is infinitesimal in comparison to that ingested with food. The drinking of water is beneficial, of course, in that it increases the amount of solvent. When the loss of fluids by perspiration and physical work is considerable, the nitrogenous metabolism is high with a correspondingly large output of urea and salts.

So that, in the matter of diet, water must be definitely considered, and its intake prescribed in accordance with the patient's ability to eliminate it.

Supersaturation of urine or any other solution of salts must exist before crystallization occurs. Foreign material, such as epithelium, mucus, blood, foreign bodies, bacteria, do not cause crystallization in a fluid that is simply saturated. Neither is their presence necessary to start crystallization in a supersaturated urine. The formation of a colloid material which serves as a nucleus of a stone was suggested by Rainey nearly fifty years ago. Such colloid was thought to be the result of desquamative-degenerative changes in the renal pelvis or calyces; but colloid material of this kind exists in urine even under normal conditions, and many salts are kept in solution by such colloids. When they are separated from the colloids, by dialysis, they immediately crystallize. Several hours may be required for a clear alkaline urine to become cloudy (from crystallization of the phosphates), whereas if the colloids are removed from the urine this process occurs rapidly.

While it is true that the nucleus of a stone may be a foreign body, blood-clot, tissue remnant, parasites, or bacteria, it is also true that the majority of stones do not contain such foreign materials, but are composed of chemical precipitates and colloids, notably renal calculi, which consist of crystallized inorganic salts (either acid or alkaline in reaction) with a protein framework.

Crystallization (or precipitation) of solids in urine depends partly upon their concentration, partly upon the reaction of the urine, and partly upon the presence of colloids. But the presence of these three factors alone is inadequate for stone formation: there must also be *stasis*. As long as there is free flow of urine the crystals will be washed out as "sand" or "gravel"; but as obstruction sets in, a stone results. All these factors are essential for urinary stone formation, and if all of them are not present at the same time, stone formation cannot occur.

Another very interesting factor in stone formation was stressed lately in connection with the elimination of calcium from the body by the way of the large intestines and the kidneys, as related to parathyroid gland function. Hunter and Aub,[1] from their studies on human beings, and Greenwald,[2] from his studies on animals, found that with administration of parathyroid hormone the excretion of calcium in urine was increased markedly (whereas the excretion in feces did not increase appreciably). The same phenomenon is observed in hyperparathyroidism which is associated with increase of calcium content in the blood and tissues, the latter resulting in a great increase in output of calcium by the kidneys. But a marked increase in the normal urinary crystalloids adds so greatly to the burden put on the above mentioned protective colloids that they are unable to perform their work (to keep the crystalloids in solution) efficiently, then precipitation with formation of calculi is likely to occur.

Mandl recently illustrated this and conducted experiments to show the part which *obstruction* (stasis) may also play. Ten guinea-pigs were given ten units of parathyroid hormone daily for four weeks. During this period, artificial obstruction of the urinary tract was produced by compression of the urethra for from seven to twelve hours daily. Eight of these animals lived, and in three crystalline deposits formed in the renal pelvis. On post-mortem examination the other organs were found to be essentially normal, and in none of the control animals was there any evidence of formation of stones. Albright[3] and others called attention to the association of hyperparathyroidism and nephrolithiasis. Castleman and Mallory directed attention to the presence of renal stones in twenty of twenty-five cases of hyperparathyroidism reported from the Massachusetts General Hospital. In eleven of these cases the symptoms were referable to the urinary tract, and the skeletal changes were minute or were overshadowed by the renal lesions.

Thus, attention should be called to the importance of performing routine tests for serum calcium and serum phosphorus in cases of nephrolithiasis. This procedure was instituted at the Mayo Clinic about a year ago, and the problem is being investigated by the Section on Urology.

1025 Story Building.

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[1] The Metabolism of Calcium and Phosphorus and the Parathyroids in Health and Disease, Quarterly Journal of Medicine, 24:393-446 (April), 1931.

[2] Ibid.

[3] Renal Complications of Hyperparathyroidism, Am. J. Med. Sciences, 187:49-65 (January), 1934.

CHYLOUS ASCITES IN LYMPHATIC LEUKEMIA*

REPORT ON TREATMENT WITH X-RAY

By WINDSOR C. CUTTING, M.D.
San Francisco

THERE have been more than three hundred cases of chylous ascites recorded in the literature, and of these about five per cent have been due to involvement of the thoracic duct by one of the lymphoblastomata.

Blankenhorn,[1] in 1923, reported a mediastinal tumor causing chylothorax, which was treated by x-ray and radium. A year later the patient was living and seemingly well. In 1927, Ruddell[2] reported the treatment of a case of chylous ascites and chylothorax by radiation, but without any influence on the course of the disease. At section the thoracic duct was found to be obliterated by a large lymphogranulomatous mass, "probably of tuberculous origin." Cohn,[3] in 1931, noted the failure of radiation to alter the formation of chylous ascites in a case of lymphosarcoma.

The following case illustrates the temporary response which may follow radiation, and includes autopsy findings.

REPORT OF CASE

Summary: A man with lymphatic leukemia who developed chylous ascites which disappeared temporarily after x-ray therapy; retroperitoneal mass obstructing the thoracic duct found at autopsy.

June 27, 1934.—F. B., a 67-year-old salesman of Italian descent, entered the medical service because of painless lumps in his neck, axillae, and groins, which had first been noticed about six weeks before. The past history was irrelevant. Examination showed him to be obese, but not apparently ill. On both sides of the neck, in both axillae, and in both groins were large, rather soft glandular masses. The spleen and liver were not felt. He was not anemic; the white count was 31,000, with 94 per cent lymphocytes. The urine was normal and the blood Wassermann negative. Fluoroscopy showed no tumors in lungs or mediastinum. A diagnosis of lymphatic leukemia was made after a biopsy of a cervical lymph node.

X-ray therapy was started at once, with irradiation of all of the glandular masses. Forty r were given daily for one week, then every four days for two months, and then two at fortnightly intervals, the last treatment being on October 10. A total of 920 r was given to each of six 15 centimeters round areas. The glands rapidly diminished in size and by the completion of the treatment could barely be made out. No anemia had developed and the white count had been reduced to 12,000, with 80 per cent lymphocytes.

October 24, 1934.—Patient reëntered the hospital because his abdomen had become greatly swollen during the past three weeks, and he had lost strength and become dyspneic. Examination showed him to be cyanotic and to have an abdomen greatly distended with fluid. The glandular enlargements in neck, axillae, and groins had not recurred. The blood showed 3.8 million red cells, 84 per cent hemoglobin (Sahli), and 16,000 white cells, with 62 per cent lymphocytes. The colloidal osmotic pressure of the blood serum was 257 millimeters of water (moderately low).

Seven liters of chylous fluid were removed from the abdomen by paracentesis. This fluid was rose-pink in color, with an opaque, lustrous surface which suggested pink cream. It contained 1 per cent of fat and 4.4 per cent of protein. The sediment showed many red cells and lymphocytes. The liver and spleen were not palpable.

Since the chylous ascites was apparently due to leukemic infiltration along the thoracic duct, presumably with rupture of the duct, intensive x-ray therapy to the chest and abdomen was begun. Some 100 r were given daily for two weeks, the back and front being treated on alternate days. On November 5, while still being irradiated, two liters more of fluid were withdrawn from the abdomen. This was still opaque, but contained only 0.2 per cent fat and 4.5 per cent protein. When dismissed on November 12, he felt much stronger, had no ascites or glandular enlargements, and his blood showed 3.2 million red cells, 71 per cent hemoglobin, 4,000 white cells with 75 per cent lymphocytes.

January 6, 1935.—There was no evidence of reaccumulation of ascites.

January 24, 1935.—The patient reëntered the hospital because his abdomen had again been swollen for a week. Nine liters of chylous fluid similar to that obtained at the first tapping were removed. The blood showed 3.2 million red cells, 73 per cent hemoglobin, and 3,000 white cells with 50 per cent lymphocytes.

During February, fifteen more liters of similar fluid were removed in two tappings, in spite of a series of three daily 100 r treatments to the trunk, and a second of eight identical treatments about three weeks later.

March, 1935.—He rapidly lost strength, and in a final paracentesis on March 16 seven more liters of the usual pink, milky fluid were removed. In this fluid there was a large amount of Bence Jones protein, as determined by the following method: The ascitic fluid was centrifuged to remove the free red cells (it contained no hemoglobin) and then diluted 1:10 with normal saline. Three drops of 20 per cent sulphosalicylic acid per cubic centimeter were added, with mixture boiled, and filtered while boiling. On cooling the filtrate, a precipitate appeared which redissolved on a second boiling. There was no Bence Jones protein in the urine. The blood on March 19 showed 3.2 million red cells, 70 per cent hemoglobin, 3,000 white cells with 51 per cent lymphocytes; the blood calcium was 7.8 milligrams per 100 cubic centimeters, the blood phosphorus 3.4 milligram per 100 cubic centimeters, and the phosphatase 2.3 units.

March 25, 1935.—The patient died. The *autopsy report,* abstracted by Dr. Alvin J. Cox, Jr., is as follows: The body showed moderate brown pigmentation of the skin. The peritoneal cavity contained about 900 cubic centimeters of turbid orange fluid, and both visceral and parietal peritoneal surfaces showed poorly defined areas of thickening, with scattered punctate hemorrhages. There was only slight enlargement of the peripheral lymph nodes. The largest, which was in the left inguinal region, measured three centimeters in diameter. In the retroperitoneal region, however, there was extensive lymph-node enlargement. Above the pancreas was a large mass of fused lymph nodes measuring 12 by 6 by 4 centimeters, and surrounding the abdominal aorta was a nodular collar of soft, markedly congested abnormal tissue about three centimeters thick. The vena cava passed through the lower part of this mass, but the receptaculum chyli and the lower portion of the thoracic duct could not be identified, though its normal position lay within the mass of tumor. The spleen was not enlarged, and no leukemic infiltrations of other organs were visible grossly.

Microscopical sections of the lymph nodes showed extensive infiltration of small lymphoid cells which in many places were sharply limited by the capsule of the nodes. The liver showed small areas of infiltration in the portal connective tissue. The bone marrow showed small focal collections of similar cells. Infiltration was not seen in the spleen.

Primary anatomical diagnosis: Leukemia, lymphatic.

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* From the Department of Medicine, Stanford University School of Medicine.

[1] Blankenhorn, M. A.: Chylous and Pseudochylous Effusions, Arch. Int. Med., 32:129, 1923.

[2] Ruddell, K. R.: Chylous Ascites and Chylothorax Due to Lymphogranulomatosis of the Mesentery and the Receptaculum Chyli, Indianapolis Med. J., 30:213, 1927.

[3] Cohn, I.: Chylous Ascites, Am. J. Surg., 11:260, 1931.

COMMENT

A case of lymphatic leukemia was complicated by chylous ascites, which was removed by paracentesis and did not reaccumulate for more than two months after x-ray therapy. Subsequently it recurred repeatedly, and autopsy showed obstruction of the thoracic duct by leukemic infiltration.

Stanford University School of Medicine.

FAULTY POSTURE CONTRIBUTING TO GASTRIC AND DUODENAL ULCER

By Frederick J. Walter, M.D.
San Diego

The writer has observed, over a period of years in medical practice, that gastric and duodenal ulcers occur more often in persons who sit a great deal, either at a desk or in faulty posture reading. The habit of sitting on the sacrum, rather than erect, is very common. This faulty posture, semi-reclining, pushes the costal arch inward, compressing the lesser curvature of the stomach and the cap of the duodenum, producing ischemia. Ischemia of the mucous membranes of the organs, with plenty of hydrochloric acid, would favor ulcer by allowing the bloodless tissue to digest its surface with resultant ulceration. It seems to me to be highly desirable that prolonged pressure should be avoided under the liver in this area during digestion. The frequency of ulcer in the lesser curvature of the stomach and the upper one-third of the duodenum would bear out this hypothesis.

It has also been my observation (both as a victim and with patients) that sitting erect and taking frequent deep breaths, if continued sufficiently long, has relieved the burning, gas, and distress.

I offer this as a most plausible contribution to the etiology, direct or indirect, to gastric and duodenal ulcer.

Bank of America Building.

ACUTE APPENDICITIS ASSOCIATED WITH ACUTE MECKEL'S DIVERTICULITIS

By P. M. Hunter, M.D.
and
E. F. Kehr, M.D.
Carmel

The occurrence of acute inflammatory processes of Meckel's diverticulum, especially in children, is too well known to require recapitulation. In a symposium on "The Acute Abdomen," Miller and Wallace [1] have reviewed the literature on the anatomy and pathology of Meckel's diverticulitis, and have stressed the importance of searching for this condition when the appendix is not found to be acutely inflamed.

In our search of the literature we have not found a report of the association of Meckel's diverticulum and the vermiform appendix, each in an acutely inflamed condition sufficient to give rise to the acute abdominal symptoms and at the same time each having a small area of surrounding intestinal and peritoneal inflammation in no way associated with the other.

REPORT OF CASE

R. C., male, aged 32, had acute pain in the abdomen three days before admission to the Peninsula Community Hospital, which he attributed to indigestion due to hasty eating and fatigue from overwork. He was conscious for years of a small, annoying pain in his lower right abdomen, and felt that he "might have an appendix." On the evening before admission, he experienced very acute generalized abdominal pain, nausea and vomiting. In the morning, while at work, he called one of us. Examination revealed: Temperature, 100.4 degrees; pulse, 90; respiration, 16. The upper respiratory tract was negative. Lungs were clear and resonant, and the heart normal. There was moderate rigidity of the lower abdomen, especially of the lower belly of the right rectus. Pain only on deep pressure over McBurney's point. Rectal examination was negative. The leukocyte count was 26,500, with 82 per cent polymorphonuclear neutrophyllic cells. The patient was immediately admitted to the hospital for surgery, with the diagnosis of acute appendicitis.

After spinal anesthesia, a McBurney incision was made and the rectus retracted. As the peritoneum was opened a slight amount of serous fluid exuded. After placing the retractors, a thumb-like projection was seen through the opening. This was a diverticulum about seven centimeters long, two centimeters in diameter at its base and attached to the small bowel on its antimesenteric border. It was exceedingly inflamed in its proximal half and dark, hemorrhagic-black at its tip. No opening could be found. After ligating, excising and burying the stump with a purse string suture, we found it was located about one meter from the ileocecal junction. The surrounding ileum was moderately injected in an area of about three inches. The appendix was then located and found to be markedly swollen, about ten centimeters long and curved upon its tightened mesentery. There was great engorgement of its blood vessels and reddish-black in its distal portion. It was removed in the usual manner and closure was made without drainage. The patient, discharged from the hospital on the eighth day, made an uneventful recovery.

COMMENT

We are aware that, had the diverticulum not exposed itself immediately upon spreading the incision, we would have been content, having removed the acute appendix, and would probably have been acutely embarrassed at a later time with recurrence of symptoms remarkably simulating the appendicitis. Likewise, the hemorrhagic portion of the diverticulum might have been a peptic ulcer,[2] although no perforation could be found, and might have produced disastrous postoperative results had it been overlooked. This occurrence should stress the importance of further abdominal exploration, regardless of one's having found sufficient pathology to account for the surgical condition, since the percentage of diverticuli is from one to three per cent.[3]

Ocean Avenue.

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[1] Miller and Wallace: Meckel's Diverticulum in Acute Abdominal Emergencies, Annals of Surgery, 98:713 (Oct.), 1933.

[2] Aschner and Karelitz: Peptic Ulcer of Meckel's Diverticulum, Annals of Surgery, 91:573 (April), 1930. Cobb: Annals of Surgery, 94:251 (Aug.), 1931.

[3] The Practitioner's Library of Medicine and Surgery, 4:577. D. Appleton, 1935.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

BIOCHEMISTRY AS IT IS OF IMPORTANCE IN DERMATOLOGY

I

ENDOCRINES IN RELATION TO THE SKIN

LAURENCE R. TAUSSIG, M. D. (384 Post Street, San Francisco).—The glands of internal secretion have received considerable attention in recent years. In spite, however, of the large number of experimental and clinical observations which have been reported, much remains in the realm of theory and speculation. It becomes increasingly evident that the problem is a complicated one in that the activity of each of these glands is more or less dependent on that of the others. In addition, it is likely that this system is closely connected with the sympathetic nervous system, and that many of the effects ascribed to the endocrines are the indirect result of the action of the hormones on this system.

The pathologic changes in the endocrine glands can only be quantitative. We may have a total absence of secretion, hypofunction or hyperfunction. A true dysfunction, in the sense of a qualitative variation, is not possible.

The study of the internal secretions can only be approached by a relatively limited number of methods:

1. A study of the effect of changes in the gland in experimental animals or in human beings. Thus the surgical removal of all, or a portion of a specific gland, either in the laboratory or in the course of human surgery, provides an opportunity to study the effect of the absence or decrease of a single hormone. Furthermore, the quantitative function may be altered by either stimulating or retarding doses of roentgen radiation.

2. The effect of the ingestion, injection or implantation of an extract, or of the gland substance in patients in whom a hypofunction is suspected. The results of this type of substitution therapy must be considered doubtful on account of the possibility of some secondary action being responsible for the apparently good effect. In addition, the possibility of spontaneous regression of the condition under consideration must be kept in mind.

3. The special pharmacodynamic tests, such as cutaneous tests with organic extracts, injections of pilocarpin, atropin, adrenalin, and the Abderhalden ferment reactions, have been for the most part disappointing. This method of attack, however, promises to do more in the final solution of our problems than the other two.

The endocrine glands, especially the thyroid, have an important function in the basal metabolism, and in the development and growth of the organism. Certain gross malfunctions of these glands have been shown to produce well-known clinical syndromes, including more or less specific changes in the quality and texture of the skin and of its appendages. Among these are hyperthyroidism, myxedema, acromegally, infantilism, Simmond's disease, and so forth. The cutaneous changes in these conditions are well known, and there is no purpose in reviewing them here.

With the increase in the interest in endocrinology, it has become common to attempt to link various conditions, the etiology of which is not clear or entirely unknown, with the malfunction of one or more of the glands of internal secretion. This has resulted in a large mass of more or less uncritical reports of clinical observations, of which certain facts of value stand out conspicuously. It is perhaps of interest to mention a few of the commoner cutaneous disorders which may be due to an endocrine imbalance, and to indicate briefly some of the observations which have been reported.

Psoriasis is one of the conditions of which the etiology remains uncertain. A large number of cases have been reported which were apparently benefited by the ingestion of thyroid hormone. It is possible that the effect of the thyroid is wholly secondary, in that it increases the metabolic rate and causes a loss of weight. It has been noted that certain psoriatics have exacerbations of their disorder when they put on weight, and improve when they reduce. One group of investigators believe that the disease is closely connected with the function of the gonads. This is based on the fact that it rather frequently first appears at the time of puberty and tends to disappear about the fifth decade. It sometimes either improves or becomes worse during pregnancy. Instances have been reported of improvement from the use of gonad preparations. The pituitary was considered of importance in the pathogenesis of psoriasis, in at least some instances by Buschke and Curth, who found radiologic evidence of enlargement of the sella tursica in five of thirty-two cases. In general, it may be said that the evidence for an endocrine etiology for psoriasis remains doubtful.

In the case of scleroderma certain very interesting experimental results have been reported. In the laboratory the feeding of young white rats with parathyroid gland tissue has been found to cause a skin disorder, clinically and histologically, similar to scleroderma of humans. The surgical removal of the parathyroids has resulted in a cure of scleroderma in a number of instances. The French school maintains that scleroderma is associated with hypercalcinemia; and since the removal of the parathyroids decreases the blood calcium this may explain the benefit of parathyroidectomy. Clinical reports have indicated occasional good results from the use of thyroid medication. At the last meeting of the American Dermatologic Association, Engman and his associates reported a series of over twenty cases of scleroderma treated by injections of an extract of the anterior lobe of the pituitary, with improvement in every case but no cures.

Idiopathic progressive atrophic dermatitis and poikiloderma atrophicans vasculare have been considered by some authors to be due to functional changes of the endocrine glands, but the evidence so far is decidedly meager.

The not infrequent improvement of epidermolysis bullosa and the less common amelioration of xeroderma pigmentosum at the onset of puberty indicate that these conditions are closely connected with the internal secretions of the gonads. It is known that tinea tonsurans due to the microsporon clears spontaneously at the time of puberty. Some recent experiments tend to show that the hydrogen ion concentration of the secretions of the skin changes toward the acid side at this time, and this change, possibly due to the hormone effect, may be responsible for the cure of the tinea.

The incidence of acne vulgaris shows a possible connection with the development and activity of the gonads, but therapy by means of extracts of these glands has for the most part given disappointing results.

The importance of the endocrine system in the pathogenesis of the hyper- and hypopigmentary cutaneous conditions is undoubted. Nevertheless, substitution therapy in these conditions has been of benefit in but few instances.

This sketchy review is sufficient to indicate the tremendous importance of the endocrine glands in dermatology, but it also shows that at the present time our knowledge is too incomplete and inaccurate to do more than to stimulate further research in this field. Further work in determining and isolating the active elements of the various glands by biochemical means offers the greatest opportunity of solving the uncertainties which still exist.

* * *

II

THE MINERAL SALTS IN RELATION TO THE SKIN

Kendal Frost, M. D. (1930 Wilshire Boulevard, Los Angeles).—"The basic elements of the blood and tissue consist almost entirely of sodium, potassium, calcium, and magnesium. The minute amounts of rarer alkali metals, ammonia and organic bases, which have been demonstrated, are negligible in any consideration of the combined quantitative effects of the bases as such. At reactions so nearly neutral as those which prevail in the body, the alkali metals can exist only in combinations with acids as neutral salts (*e. g.*, free Na OH cannot exist to a significant extent). Consequently, the sum of the acid equivalents must equal that of the bases, in terms of positive and negative monovalent equivalents.

"Total base (B) $= Na—K—Ca—Mg = HCO_3 — Cl — PO_4 — SO_4$ plus protein and organic acid anions."

"In the human body the rule seems to hold that in the cells potassium is the predominant base, while in blood plasma sodium in molal concentration is about eighteen times as abundant as potassium. Other extracellular fluids proximate blood plasma in their electrolyte composition. In normal human serum the concentration of total base varies from 150 to 160 milli equivalents, of which five each are calcium and potassium, three magnesium, and the remainder sodium.

"A genuine understanding of the functions of sodium, potassium, calcium and magnesium, and their salts in the organism would necessitate a comprehension of the nature of protoplasm and its behavior in living cells—something we have not begun to attain. However, we do know that osmotic pressure within what we call physiologic limits appears to be necessary for the proper functioning of the cells of the mammalian organism. The maintenance of this osmotic pressure depends primarily on the total base content of both extra and intracellular fluids. Another rôle of the base is the maintenance of physiologic neutrality."

In the blood and tissue fluids, sodium is chiefly present extracellularly, while potassium is almost entirely intracellular. Calcium is present chiefly in bone, but is also in solution in the body fluids in combination with proteins, and also as an inorganic salt. Little or nothing is known regarding the significance of magnesium. It is present in bone and also in solution in body fluids. Most of the bases are in combination with chlorids, but the combination with weak acids—carbonates, bicarbonates, phosphates, and biphosphates—constitutes what are known as the buffer salts, which, in conjunction with proteins, maintain the acid-base balance.

"Chlorids assist in the maintenance of physical neutrality in the body fluids, and play a part in the distribution of water in the circulating blood, the intracellular tissue spaces and serous cavities, and the body cells. Sodium chlorid helps to maintain the electrolyte concentration of the fluids of the organism. With changes in the salt content of the fluid surrounding them, the tissue cells swell and shrink, and suffer by it when such changes are too great. The prevention of such disasters may be a part of the function of the chlorids.

"The rôles of phosphorus and sulphur have not been established on sufficiently concrete ground to discuss them with the other organic constituents of living tissues. The phosphates have some function as buffers in maintaining the normal p^H of the blood. Inorganic sulphates are found in varying quantities in all the tissues of the body, although the rôle of the sulphates is not well understood. They may represent a waste product from the conversion of other forms of sulphur en route to elimination." (Quoted and abstracted from Peters and Van Slyke.)

In turning our attention to the relationship of the metabolism of inorganic salts to diseases of the skin, it is necessary to consider the functions of these elements in terms of general physiology. With the means at our command, we are seldom able to demonstrate related disturbances of metabolism to any great extent, and therefore our conclusions have little practical clinical importance. In general, it can be said that the changes in the mineral content in the blood in skin diseases vary within normal limits. The group of dermatoses chiefly associated with abnormal findings in the mineral content of either the blood or the tissue are those referred to by the German school as the exudative dermatoses, chiefly eczema, seborrheic dermatitis, multiform erythema, and urticaria, although some of the observations include such disorders as rosacea, acne, psoriasis, and pemphigus. These changes concern chiefly the content of sodium, or sodium chlorid and calcium.

Some observations have been made on the calcium potassium ratio, and a little work has been done on the salt content in tissue in skin diseases by Urbach and Nadel. Urbach's figures for normal are somewhat lower, taking 200 to 320 milligram per cent as normal, whereas Nadel's normal for sodium chlorid is 522 to 615 milligram per cent. However, their results correlate pretty closely, namely, that there is an increase in the sodium chlorid content of the tissue in nearly all the inflammatory lesions of the skin, and in Nadel's series normal skin was examined in the same patients and an increase of sodium chlorid was noted in the normal tissue, although not as great as that in the affected part. The water content was proportionately increased with the sodium chlorid content.

Some of the most interesting work has been done on calcium. Klauder, in particular, has written on this subject. His animal experiments show that cutaneous irritability is decreased with an increase of calcium and a decrease of potassium. In his experiments the variation of sodium and magnesium determinations were so great that no correlation could be made between them and irritability. The determinations of the blood calcium itself show relatively little if any change from normal, although the calcium-potassium ratio has been shown by Nathan and Stern to be definitely changed in the blood during the eruptive phase, of several dermatoses of the erythema type. At the high point of the inflammatory process the potassium falls and the calcium rises, returning gradually to normal as the condition subsides. One observer, Hedge, found that therapy which increased blood calcium and phosphorus had a beneficial effect on psoriasis, although the normal constituents of these metals was not altered.

Some work has been done in France on the acid base equilibrium, chiefly by Spellman, Varin, and Weiss, who report a disturbance of acid-base balance in cutaneous reactions with an exudative factor; the disturbance may be either of acidity or alkalinity, 22 per cent on the acid side and 74 per cent on the alkaline except in psoriasis, in which there were eight cases toward alkalosis and one toward acidosis. Their conclusion is that, since these changes are not associated with general diseased conditions, they must be due to more subtle sources; as, for example, alimentation, hepatic dysfunction, and allergy.

The most practical discussions on mineral metabolism are concerned with the use of salt-free diets, which were first used in cutaneous tuberculosis, particularly lupus vulgaris. In a symposium on this subject in 1932 several German authorities discussed the matter. Most of them agreed that salt-free diets are of definite value in the exudative dermatoses, although one observer frankly stated that he felt the whole question of mineral metabolism was too little understood for us to be able to draw any practical conclusions with our present knowledge.

Keinung and Hopf have written considerable on the use of an equilibrated salt containing sodium, potassium, magnesium, and calcium in proportion to their normal concentration in body fluids as a substitute for table salt, and report results comparable with the use of the salt-free diet. Other observers abroad, and Eller and Reiss in this country, have not been able to confirm these findings.

We can conclude, therefore, that the mineral salts behave in disturbances of the skin as we would expect them to do according to their general physiologic behavior in the body, and that from an etiologic point of view we have no basis for considering them fundamentally as causative factors in the production of any diseases of the skin.

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III

THE CARBOHYDRATE METABOLISM IN RELATION TO THE SKIN

George V. Kulchar, M.D. (450 Sutter Street, San Francisco).—In the past decade the association of various disorders of the skin with a high carbohydrate intake has gained wide clinical acceptance. The numerous reports of varying degrees of hyperglycemia noted in association with various dermatoses, and the apparent higher incidence of infectious skin diseases in diabetics have afforded some clinical support to this concept. There is, however, no adequate demonstration of any physiologic mechanism by which disturbances of the carbohydrate metabolism may produce pathologic changes in the skin. Many theories have been advanced to explain the genesis of dermatoses in patients with abnormal carbohydrate metabolisms. Kaposi[1] was of the opinion that some product of the recomposition of glucose acted in one of three ways: by direct stimulation of the sensory nerves of the skin with the production of pruritus, by the disturbance of the vasomotor and excretory physiology of the skin, or by exogenous irritation in the excretions of the skin. Bloch[2] advanced the theory that abnormal decomposition products may become accumulative and produce toxic changes resulting in altered reaction to endogenous and exogenous agents. Jadassohn[3] subscribed to a somewhat similar view. It is noteworthy that these observers believed that some decomposition product, not glucose itself, is the important agent in the genesis of the dermatoses.

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[1] Kaposi, M.: Hauterkrankung bei Diabetikern—Dermatosis Diabetica, Wien. Med. Wchnschr., 34:93, 1884.

[2] Bloch, B.: Beziehung zwischen Hautkrankheiten und Stoffwechsel Anomalien, Ergebn. d. inn. Med., 2:521, 1908.

[3] Jadassohn, J.: Hautkrankheiten beim Stoffwechselanomalien: V, Internat. Dermatologen-Kongress, 2:155, 1905.

However, it is a consideration of importance that diabetic patients having a consistently high blood sugar level do not commonly develop dermatoses or skin infections. From this observation it would seem that there are individual variations in the carbohydrate metabolism of the skin in the presence of a high blood sugar.

The glucose metabolism of the skin must be considered as being a part of the general body processes for the metabolism of carbohydrates, but that part is, however, far more than incidental. There is at the present time some evidence to suggest that the metabolism of carbohydrates is not dependent solely upon adequate pancreatic insular function, and that there is some substance in the anterior pituitary that may be a factor. Evans [4] and his coworkers, and Houssay [5] have noted hyperglycemia and glycosuria in normal animals following the injection of anterior pituitary extracts. Changes in the carbohydrate metabolism have been observed by Lehwirth [6] following the injection of follicular and corpus luteum hormones. Whether these observations are in any way related to the endocrine factors underlying certain skin diseases, as acne and seborrheic dermatitis, through alterations in the glucose tolerance is at the present time still conjectural.

The skin, representing about one-sixth of the total body weight, its bulk surpassing the liver, is an organ of considerable influence in the carbohydrate metabolism of the organism. A variable amount of the glucose ingested is temporarily stored in the skin. In fasting dogs, Folin, Trimble and Newman,[7] following the injection of large amounts of glucose (three grams of glucose per kilo of body weight) observed a marked rise in the skin dextrose level, varying from more than half to a level above that of the blood sugar. Simultaneous determinations of the muscle gave glucose values only from one-third to one-fourth that of the skin. From their studies they conclude that the skin is an important outlet for the sugar as it leaves the blood. The storage of glucose in the skin is, however, only temporary, according to these observers; because, in the fasting animal, the skin contains practically no glycogen and only about 10 milligram per cent more dextrose than the muscles. The increased storage of dextrose in the skin, as compared to muscle, is a finding of some significance. Either dextrose does not diffuse as rapidly into the muscle as into the skin, or the muscle rapidly transforms the diffused dextrose into other substances. Pillsbury and Kulchar [8] have observed the dextrose content of the epidermis to coincide closely with that of the whole skin.

The presence of glycolytic and diastatic enzymes in the skin has been demonstrated by Wohlgemuth [9] and his coworkers. They report, however, a wide variation in the diastase content of the skin. The glycogen content of the epidermis, according to Fahrig [10] varies from 226 to 344 milligram per cent, while that of the corium from 71 to 157 milligram per cent. Warren [11] has observed the glycogen content of the skin to be considerably lower in diabetics, a most interesting observation.

That the skin has an intrinsic carbohydrate metabolism, as evidenced by the formation of lactic acid *in vitro,* has been shown by the work of Fahrig, Wohlgemuth,[12] and Ikebata and, more recently, by the conclusive studies of Pillsbury.[13] Since the lactic acid formation occurs only at the expense of the carbohydrate material, it furnishes a convenient index of carbohydrate metabolism. From the work of Pillsbury it is apparent that skin containing abnormal amounts of dextrose is capable of forming lactic acid *in vitro* at an increased rate. In the normal living skin, according to this investigator, it is probable that the lactic acid formed above a certain level rapidly disappears. Even following the injection of large amounts of glucose into the blood stream there is no appreciable rise in the lactic acid level of the skin. The question as to whether any appreciable rise may occur in abnormal skin, and whether a high lactic acid content is productive of any gross physiologic changes, cannot be answered at the present time. Whether or not lactic acid is the hypothetical metabolite suggested in the theories of Kaposi, Bloch and Jadassohn, as being concerned in the production of pathologic changes in the skin associated with altered carbohydrate metabolism, remains to be determined. It is interesting to note that Leake, Hall and Koehler [14] have observed that the addition of lactate ion to perfusing fluids greatly diminishes the constricting effects of changes in the p^H on blood vessels. They suggest that lactic acid may assist materially in dilating blood vessels and maintaining adequate circulation. The injection of lactic acid solution into the skin of a normal individual in a concentration only slightly above that normally present will produce a definite pruritic erythema. The possibility of lactic acid being a factor in promoting skin infections is suggested by the work of Hall and Fraser,[15] who observed that the addition of lactic acid in culture medium greatly increased the bacterial growth. Irala[16] has noted that lactic acid in a concentration of 50 milligram per cent checks phagocytosis markedly. The specific toxicity of lactic acid for leukocytes has been reported by Evans.[17] However, no direct experimental evidence has been produced to substantiate the theoretical supposition of the rôle of lactic acid in the pathogenesis of dermatoses.

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[4] Evans, E. I.: Diabetogenic Principle of Anterior Pituitary, Proc. Soc. Exper. Biol. and Med., 30:1370 (June), 1933.

[5] Houssay, B. A.: Diabeteserrengende Wirkung des Hypophysenvorderlappenextraktes, Klin. Wchnschr., 12:773 (May 20), 1933.

[6] Lehwirth, S.: Experimentelle Untersuchungen über den Einfluss der Weiblichen Sexualhormone auf den Kohlehydratstoffwechsel, Zentrabl. f. Gynakol., 59:78 (Jan. 12), 1935.

[7] Folin, O., Trimble, H. C., and Newman, L. H.: The Distribution and Recovery of Glucose Injected into Animals, J. Biol. Chem., 75:263 (Oct.), 1923.

[8] Pillsbury, D. M., and Kulchar, G. V.: The Dextrose and Water Content of Normal and of Inflamed Skin, Arch. Dermat. and Syph., 30:489 (Oct.), 1934.

[9] Wohlgemuth, V., and Sugihara, N.: Die Fermente die Haut, Biochem. Ztschr., 163:260, 1925. Yamasaki, Y.: Ueber die Fermente der Haut, *Ibid.,* 147:203, 1924.

[10] Fahrig, C.: Ueber den Kohlenhydratunsatz der Geschwulste und ihrer normalen Vergleichsgewebe sowie seine Beziehung zum Milchsaureaushalt des Korpers, Ztschr. f. Krebsforsch., 25:146, 1927.

[11] Warren, S.: The Effect of Insulin on Pathologic Glycogen Deposits in Diabetes Mellitus, Am. J. M. Sc., 179:482 (April), 1930.

[12] Wohlgemuth, V., and Yamasaki, Y.: Ueber die Fermente in die Haut, Klin. Wchnschr., 3:1113 (June 17), 1934.

[13] Pillsbury, D. M.: The Intrinsic Carbohydrate Metabolism of the Skin, J. A. M. A., 96:426 (Feb. 7), 1931.

[14] Leake, C. D., Hall, F. G., and Koehler, A. E.: The Influence of the Hydrogen Ion Concentration on Vascular Toxicity, Am. J. Physiol., 65:386 (July), 1923.

Most dermatoses are not accompanied by derangement of the carbohydrate metabolism, as indicated by fasting blood-sugar determinations and dextrose tolerance tests. However, this does not necessarily indicate that there is no derangement of the intrinsic carbohydrate metabolism of the skin. In man there is a fairly constant ratio between the dextrose content of the skin and of the blood, according to Urbach[18] and his coworkers. Following the ingestion of large amounts of glucose, this ratio may be disturbed. In "normal" individuals, in whom the resting value of skin glucose was from 40 to 50 per cent of the blood-sugar level, the maximum level of skin dextrose was reached in one hour following the ingestion of 100 grams of glucose. The rise was not as abrupt nor nearly as high as the blood sugar; but whereas the blood glucose returns to the fasting level in two hours, the skin commonly requires three hours to return to its original level. A second type of curve noted was that in which both the blood and the skin glucose reached very high levels, the maximum being delayed for two or three hours, and in which the blood and skin often required five hours to regain the fasting level. This they termed the diabetic blood and skin dextrose tolerance curve, having observed it in cases of pruritus, eczema, furunculosis, and gangrene. A third type of curve, which Urbach and Sicher call the sympathetic endocrine, is one in which the blood reaches a very high level (320 milligrams per cent) within an hour and rapidly falls with no abnormal increase in the height of the skin glucose curve. This type of curve they have noted in ulcer cruris and chronic ulcerative pyodermia. In contrast to this third type is the curve in which the skin glucose level approaches or exceeds that of the blood and very slowly (three hours) returns to the normal level. Urbach and Sicher consider this phenomenon as evidence of latent diabetes; but whatever the interpretation the intersecting blood and skin sugar curves represent a retention of dextrose by the skin and a disturbance of the normal ratio of skin to blood dextrose.

The sugar curves of the normal and dermatitic skin, and of the blood in rabbits that have received dextrose, have been studied by Miyake and Narahara.[19] In animals with extensive dermatitis they have observed a decreased sugar tolerance. From their studies they have concluded that inflamed skin commonly shows varying changes in its capacity for storing glucose; however, the residual normal skin in dermatitic rabbits functioned normally as indicated by the skin sugar curve, but the irritated skin did not show the slightest correlation with the normal.

Using a modification of the Hagedorn-Jensen[20] method, Pillsbury and Kulchar have studied the dextrose and water content of the dermatitic skin, the effect of hyperglycodermia on the water content of the normal and inflamed skin, and the dextrose content of the inflammatory crusts. Their interest in the water content of the skin was stimulated by the frequent observance of eczema in fat infants with marked turgor of the skin, many of whom were being given high carbohydrate diets, and by the recent study of McClendon[21] indicating marked water retention following ingestion of dextrose by adult subjects. McClendon believes that the skin participates in this water retention. Increased water content of the skin in infants fed exclusively on carbohydrates has been observed by Tobler and Bessau.[22] Pillsbury and Kulchar observed no significant variation in the dextrose content between normal and inflamed skin in rabbits fed a normal mixed diet, although the water content of the inflamed skin was slightly greater than normal. The dextrose content of the inflamed skin, however, is usually higher in animals receiving large amounts of glucose. This finding is in accord with that if Miyake and Narahara. There would seem to be some derangement of the power of inflamed skin to absorb dextrose following a sharp rise in the blood sugar.

The dextrose content of the inflammatory exudate and crusts, as compared with the underlying inflamed skin or the normal skin, is markedly increased, according to Pillsbury and Kulchar. This increase may be due to the concentration of dextrose during the drying of the inflammatory exudate.

The relationship of disturbances of the carbohydrate metabolism to skin infections has been the subject of considerable study. To summarize the pertinent studies, most of which are as yet unconfirmed, it is indicated that (1) while diabetics show a somewhat increased incidence of skin infections, severe diabetics may have an entirely normal resistance to such infections, and that the presence of increased glucose in the skin is not, apparently, the sole reason for decreased resistance to infection (Greenwood and Rockwood[23]); (2) that the blood of diabetics is deficient in antibacterial power (Richardson[24]); but that (3) a heightened intake of carbohydrate in normal dogs leads to no marked decrease in antibody formation (Kleinschmidt[25]), and that the simple addition of considerable quantities of glucose to blood does not lessen its bactericidal power of staphylococci (Handmann[26]); (4) that phlorizin diabetes increased the virulence of streptococci, but not of staphylococci in rabbits (Franceschetti[27]); (5) that administration of glucose in humans apparently decreases the self-sterilizing power of the skin (Cornbleet[28]); (6) that increases of sugar in the sweat of diabetics may lead to more favorable conditions for the growth of fungi and bacteria (Usher[29]); and (7) it is doubtful whether or not decreased carbohydrate tolerance is more frequently encountered in patients with skin infections than in normal individuals (Fischer[30]) (Rudy[31]).

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[15] Hall, I. W., and Fraser, A. D.: The Action of Dilute Acids on Bacterial Growth in Optimum Hydrogen Ion Concentration, J. Path. and Bact., 25:19 (Jan.), 1922.

[16] Irala, J.: Ricerche sulla fagocitosi, Ann. d'ig., 30:28, 1920.

[17] Evans, A. C.: The Toxicity of Acids for Leukocytes as Indicated by the Tropin Reaction, J. Immunol., 7:271 (May), 1922.

[18] Urbach, E., and Sicher, G.: Beiträge zu einer physcologischen und pathologischen Chemie die Haut. Arch. f. Dermat. u. Syph., 157:160, 1929. Urbach, E., and Fantl, P.: Methoden zur quantitavchemischen Analyse die Haut, Biochem. Ztschr., 196:471, 1928.

[19] Miyake, I., and Narahara, K.: Eczematose Hautveränderung und Zuckerstoffwechsel, Jap. J. Dermat. and Urol., 30:85, 1930.

[20] Pillsbury, D. M., and Kulchar, G. V.: The Use of the Hagedorn-Jensen Method in Determination of Skin Glucose, J. Biol. Chem., 106:351 (August), 1934.

[21] McClendon, J. F.: On the Relation of Blood Sugar and Blood Volume and the Carbohydrate to Water Retention, Am. J. Physiol., 98:216 (Sept.), 1931.

[22] Tobler and Bessau: Allgemeine pathologische Physiologie der Ernährung und des Stoffwechsels im Kindesalter, Wiesbaden, 1914.

Recently Pillsbury and Kulchar[32] have reported the effects of repeated injections of large amounts of glucose on experimentally induced skin infections in rabbits. The parenteral administration of glucose (7.5 grams per kilo) at twelve-hour intervals for a period of six days, had no effect on the virulence or course of the infections. The carbohydrate intake of these animals, translated into equivalent carbohydrate intake in the average man, would equal 975 grams of dextrose daily, an amount far above the average. However, when the glucose injections were increased to 15 grams per kilo and given at four-hour intervals, a marked increase in the degree and extent of the skin infections was noted within twenty-four hours. A similar effect was observed following the injection of equivalent amounts of hypertonic sodium chlorid solution of the same tonicity. The results of these experiments suggest that the virulence and extent of the infections noted, at least in the experimental animal, may be in some way linked with the water balance of the skin. This is in accord with the observations of McClendon and Tobler and Bessau, previously mentioned.

From the foregoing rather brief survey of the literature it is quite evident that, while the fact that the skin possesses an intrinsic carbohydrate metabolism has been established, and there is some causal relationship between disturbances of the carbohydrate metabolism, either as a result of diet or disease and certain dermatoses, there is as yet no demonstrable pathophysiologic mechanism to explain whereby these factors operate in the genesis of skin diseases.

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IV

FATS IN RELATION TO THE SKIN

Frederick G. Novy, Jr., M. D. (411 Thirtieth Street, Oakland).—There have been, recently, two widely separated dermatologic conditions which have been studied from the viewpoint of a disturbance of fat metabolism. These are xanthomas and infantile eczema.

Xanthomas, since cholesterol crystals were found in the tumors in 1869, were thought to be due to an increase of cholesterol in the blood, and laid down locally in the skin at the site of trauma, or simply a deposition due to some other factor. The hypercholesterolemia was explained on the basis of some disease process in the liver or pancreas, leading to a disturbance of fat metabolism. However, many cases have been reported in which this explanation could not hold, as the blood cholesterol was well within normal limits.

Wile, Eckstein, and Curtis,[1,2] in 1929, reported three cases, and later two additional ones, in which they made careful chemical analyses of the tumors themselves, and of the blood. They found that the cholesterol content of the xanthoma tumor was only 16 per cent of the entire lipids present, in contrast to that of normal epithelium which is 20 per cent. Also, that cholesterol made up only 2 per cent of the solid content of the nodule. This shows that the lesions of xanthoma are not due primarily to cholesterol, but are only present along with the other lipids.

In studies on the blood serum they found no true increase in the blood cholesterol. In two of the cases the total lipids of the blood were normal, while in the other three there was a lipemia. One of these was a rather marked diabetic, and the association of a lipemia and diabetes is not an unusual finding. The other two cases showing lipemia had glucose tolerance curves of potential diabetes. While the cholesterol values in the diabetic patient were above normal, the relation of the amount of cholesterol to the total lipids of the blood was actually less than normal.

Michael and Nicholas[3] recently have carried the investigation of this subject further by analyzing all of the lipid fractions of the blood. They studied eight cases of xanthoma, including five cases of xanthoma palpebrum (xanthelasma), which they feel is the same disease as true xanthoma. In the blood serum of all but one of these cases, there was some variation from the normal relation of the different fat fractions. The normal relationship is considered to be 50 per cent neutral fat, soap, and fatty acids; 30 per cent phosphatids, and 20 per cent cholesterol. While there was a disturbance in this ratio, it was by no means a constant or definite one; each of these three components having a higher or lower value than the accepted normal in one or more cases. Six of the eight cases showed an increase or decrease in the neutral fats, and five showed either higher or lower values of the phosphatids and of cholesterol. These findings were in accordance with previous and similar work of Schaaf and Werner.[4] These last authors felt that the deviation from normal of the various component lipid fractions of the blood leads to a disturbance of the oil-water emulsion of the serum so that it becomes unstable, and there is a deposition of lipids forming xanthomatous tumors.

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[23] Greenwood, A. M., and Rockwood, E. M.: Skin in Diabetic Patients, Arch. Dermat. and Syph., 21:95 (Jan.), 1930.

[24] Richardson, R.: Immunity in Diabetes: Influence of Diabetes on Development of Antibacterial Properties in Blood, J. Clin. Investigation, 12:1143, 1933.

[25] Kleinschmidt, H.: Monatschr. Kinderheilk., 12:423, 1914.

[26] Handmann, E.: Uber die Ursache der verminderten Resistenz des Diabetikers gegen Infektionen, Deutsche Arch. f. Klin. Med., 102:1, 1911.

[27] Franceschetti, D.: Sul rapports per la presenza di glucosi d. nell organismo, Riforma Med., 38:52, 1922.

[28] Cornbleet, T.: Self-Sterilizing Powers of Skin, Arch. Dermat. and Syph., 26:463, 1932.

[29] Usher, B.: The Relation of Carbohydrate Metabolism to Eczema, Arch. Dermat. and Syph., 18:123, 1928.

[30] Fischer, J. E.: Blood Sugar Findings in the More Common Diseases of the Skin, Arch. Dermat. and Syph., 26:970, 1932.

[31] Rudy, A.: Urticaria and Insulin Resistance, New England J. M., 204:791, 1931.

[32] Pillsbury, D. M., and Kulchar, G. V.: The Relation of Skin Infections to Carbohydrate Metabolism, Am. J. M. Sc. (in press).

[1] Wile, U. J.: Eckstein, H. C., and Curtis, A. C.: Lipid Studies in Xanthoma, Arch. of Dermat. and Syph., 19:35 (Jan.), 1929.

[2] Wile, U. J., Eckstein, H. C., and Curtis, A. C.: Lipid Studies in Xanthoma, Further contribution, Arch. of Dermat. and Syph., 20:489 (Oct.), 1929.

[3] Michael, J. C., and Nicholas, H. O.: Blood Lipids in Xanthoma, Arch. Dermat. and Syph., 29:228 (Feb.), 1934.

Michael and Nicholas attempted to demonstrate this by breaking down the oil-water emulsion of both normal and pathologic serums *in vitro* by the use of commercial products used in the petroleum industry for the breaking down of emulsions, but were unable to do so. They feel, however, that in the light of present knowledge, the most likely explanation for the formation of these tumors is that the blood emulsion has become unstable, as evidenced by their findings, and is so deposited in the tissues.

Wile and his coworkers did not note any exacerbation or enlargement of the tumors, with a high fat diet, showing that there is no direct relation between ingested fat and this condition. They did find, with a reduction diet, that there was a definite involution of the disease, and this was probably due to utilization of the lipids in the tumors along with the other body fats. At present this seems to be the only general therapeutic measure available for xanthomas.

Infantile Eczema

This disease, which has been the subject of investigation over a long period, and from many different angles, has only recently been studied from the standpoint of fat metabolism.

It has been noted that in animals placed on a diet deficient in unsaturated fatty acids there were marked skin changes. With this in mind, Hansen [5,6] recently made fat determinations on normal infants and those with eczema. He found that the iodin number, which is the number of grams of iodin absorbed by 100 grams of lipoid, was definitely decreased in the serum of those infants with eczema. The average iodin number was eighty-four, while the normal control group showed in the blood serum an iodin number of 111. This indicates that serum fatty acids are less unsaturated in infantile eczema than in the normal. The only other findings were that the serum cholesterol and total fatty acids were slightly less in the cases of eczema.

As this observation was constant, he decided to treat a group with an oil high in unsaturated fatty acids. For this he used linseed oil, which has a very high iodin number. When these cases, so treated, were carried to a point that the unsaturated fatty acids were normal in the blood serum, there was a remission of all symptoms. This was done on twelve cases, all with good results.

Cornbleet,[7] using maize oil, another source of unsaturated fatty acids, but not containing as large a quantity as linseed oil, has had similar results. He states that the oil must be used over a long period of time. The dosage he used was a tablespoonful three times a day, and gradually increasing to four tablespoonfuls three times a day. He has treated eighty-seven patients. Some of the patients have remained well as long as three years.

The beneficial effects of crude coal tar in infantile eczema may possibly be explained by its action on the unsaturated fatty acids. Hansen [8] found that, after using crude coal-tar ointment for a few days in these cases, there was an increase in the iodin number of the blood serum parallel to clinical improvement. On stopping treatment the iodin number would drop and an exacerbation would take place. He felt that the explanation for this was that there was an absorption of the unsaturated fatty acids from the ointment.

While these observations on infantile eczema are only preliminary in nature, and must be substantiated by further investigation, they seem to be of the utmost significance.

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V

PROTEINS IN RELATION TO THE SKIN

Philip K. Allen, M.D. (Suite 314, Medico-Dental Building, San Diego).—Proteins are indispensable to the life of all animals. They form the bulk and a necessary part of every cell in the body, and their presence is absolutely essential for life. An animal may well exist for a long period on a fat-free or carbohydrate-free diet, but if denied proteins it would promptly die. Plants are capable of synthesizing their own proteins from nitrogen in the soil and air, but animals rely upon the ingestion of preformed proteins of plants or other animals.

Proteins may vary widely in the percentages of their various elements, but are alike in their fundamental composition. All proteins contain nitrogen, carbon, hydrogen, and oxygen. Some also contain sulphur, phosphorous, iodin, and various mineral salts. The protein molecule is a huge and complex one. Most proteins have a molecular weight of approximately 15,000, although many are several times this large. Their relatively enormous size may be appreciated by comparison with the molecular weights of familiar compounds—sodium chlorid 58, hydrochloric acid 36.

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[4] Schaaf, F., and Werner, A. J.: Arch. f. Dermat. u. Syph., 162:217, 1930, quoted by Michael and Nicholas, Arch. Dermat. and Syph., 29:228 (Feb.), 1934.

[5] Hansen, A. E.: Study of Iodin Number of Serum Fatty Acids in Infantile Eczema, Proc. Soc. Exp. Biol. and Med., 30:1198 (May), 1933.

[6] Hansen, A. E.: Serum Lipid Changes and Therapeutic Effects of Various Oils in Infantile Eczema, Proc. Soc. Exp. Biol. and Med., 31:160 (Oct.), 1933.

[7] Cornbleet, T., and Pace, E. R.: Use of Maize Oil (Unsaturated Fatty Acids) in the Treatment of Eczema, Arch. Dermat. and Syph., 31:224 (Feb.), 1935.

[8] Hansen, A. E.: Possible Mechanics of Crude Coal-Tar Therapy in Infantile Eczema, Proc. Soc. Exp. Biol. and Med., 31:61 (Oct.), 1933.

The huge protein molecule, when treated with concentrated acids, alkalies, or acted upon by certain enzymes, will ultimately break up into relatively simple substances known as amino-acids. About twenty of these acids have been isolated. It is of special interest that all proteins, whatever their origin, yield on decomposition essentially the same amino-acids. Some proteins may lack one, two or three of these substances; but, in general, all proteins are built of the same amino-acids into which they break up on digestion. These amino-acids are present in varying proportions in different proteins and are also probably bound together in different ways. Protein digestion begins in the stomach where the gastric enzymes, principally pepsin, partially break up the molecule. This digestive process is continued in the duodenum and small intestine by trypsin and erypsin. The large protein molecule is thus broken up into successively smaller components—proteoses, peptones, peptids and, finally, its integral building stones, the amino-acids. Theoretically, proteins are completely split up in the digestive tract and are absorbed as amino-acids into the circulation. They are then used for growth, tissue repair, and the formation of hormones and enzymes.

In the large intestine the nitrogenous residue is subjected to the putrefactive action of numerous bacteria which are normal inhabitants of the lower intestinal tract. By their action the amino-acids are further split up to form amins, commonly known as ptomains. Although many of these products are harmless or possibly of value to the system, some are extremely toxic.

There are several ways in which the fate of ingested proteins is of importance to the dermatologist.

The first is simply a matter of quantity. Unlike most tissues of the body, the epidermis is in a continual state of growth. Throughout life the older cells are constantly being cast off and replaced by younger cells. Since excess of protein is not stored in the body as are fats and carbohydrates, but promptly used or excreted, a continuous supply of protein material is necessary for epidermal growth. It is difficult to accurately determine the amount of nitrogen demanded by epidermal and mucous membrane growth, but in the average adult this is probably in the neighborhood of one gram of nitrogen or seven grams of protein per day. From a practical standpoint, however, a positive or negative nitrogen balance seems to play a small part in skin pathology. The basal-cells of the epidermis are endowed with the ability to extract their necessary nitrogen from the blood stream at the expense of other tissues, so that atrophy or hypertrophy of the epidermis is but little affected by the amount of protein ingested. On the other hand, it is impossible to state that any cutaneous disease is completely disassociated with diet. The skin, as any other tissue of the body, is dependent upon the general health and nutrition for its well-being.

Toxic ptomains absorbed after putrefaction in the large intestine may be the cause of various dermatoses. Such eruptions as toxic erythema, erythema multiforme and related erythemas, and urticaria, have been shown to be due in some cases to absorption of poisonous ptomains. Among the more toxic of the ptomains should be mentioned histamin, tyramin, putrescin and cadaverin, the latter two extremely toxic in even minute quantities. Foods most commonly credited with the formation of toxic ptomains by bacterial putrefaction include sea foods of all kinds, pork, mushrooms, and strawberries. This type of toxemia, or auto-intoxication, is not to be confused with allergy. Its production does not depend upon a specific hypersensitiveness, but on the toxic properties of the ptomains *per se*.

From a practical standpoint, the widest application of the biochemistry of proteins to dermatology is probably found in the field of allergy. For years it has been known that a specific idiosyncrasy to certain proteins is a frequent, though not constant, factor in various types of skin pathology. Many cases of urticaria, angioneurotic edema, prurigo, eczema, and neurodermatitis, have been shown to be due to such specific sensitization. Rational claims have been made for an allergic background as a cause of many other eruptions, among which are erythema multiforme, dermatitis herpetiformis, aphthous stomatitis, and herpes simplex.

Instances are on record where the ingestion of only a minute amount of a certain protein would precipitate a cutaneous eruption. Since other proteins, harmless to the individual, produce the same amino-acids, it is evident that the amino-acids themselves do not play a part in such an allergic reaction. It has been shown that the absorption of incompletely digested proteins actually takes place in some allergic reactions to food. Although an irritation or inflammation of the intestinal mucosa may greatly facilitate the absorption of larger protein derivatives, this abnormal physiologic process may take place in the absence of any intestinal pathology. Thus, two conditions are apparently necessary to the production of allergic reactions to ingested foods: (1) A hypersensitiveness to a specific protein. (2) Absorption of the incompletely digested protein through the intestinal mucosa.

Opinions differ as to the foods most likely to produce allergic reactions in the skin. Among the more common offenders may be mentioned eggs, cheese, sea foods, uncooked fruits, berries, pork, tomatoes, nuts, and chocolate. However, it must be borne in mind that any protein may elicit an allergic response, and that the case in hand is one for individual study.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section (Adv. pages 2, 4 and 6).

CALIFORNIA MEDICAL ASSOCIATION

ROBERT A. PEERS..President
EDWARD M. PALLETTE........................President-Elect
FREDERICK C. WARNSHUIS..
Secretary-Treasurer and Associate Editor for California

STATE AND COUNTY SOCIETY ACTIVITIES

"I GIVE AND BEQUEATH"

This Association is engaged in maintaining contacts and supporting movements initiated by lay and governmental agencies. In all of these functions a sustained effort is made to foster the public's and the profession's best interests. Supplementing these representations the Association strives to refute and discredit the claims and activities of those groups and individuals who seek to prey upon the public for selfish purposes and for personal profit.

This Association also concerns itself with the scientific and professional interests of its members. The Council, officers, standing and special committees, and constituent units are persistently and consistently engaged day in and day out in an earnest endeavor to attain in fullest degree all of the purposes and objects of organization. The only goal is public and professional betterment that eventuates in a more satisfactory condition of social and economic welfare in California.

To carry on these movements requires funds in excess of those that accrue from yearly dues and advertising income. Our progress is restrained by the limitation of funds. Our progress would be more rapid if we possessed greater resources.

Our Association's existence dates back to 1856. In the eighty years that have gone by *only one bequest* has been made to the Association. That bequest was made by the late Dr. Morris Herzstein, in the sum of $20,000. The interest of this trust fund accrues to this Association.

Surely, there are some among our membership who are financially able to emulate the example of Doctor Herzstein. What better bequest could be made and what other organization is more worthy of being the recipient of similar bequests? To you who have been fortunate in acquiring funds and financial resources, this appeal is made: Will you make a provision in your will to give and bequeath a definite sum to this Association for the purpose of providing additional resources for organization work? The principal can remain in perpetuity as an enduring memorial to yourself or some member of your family, while the trust earnings will enable the Association to expand its functions and efforts.

There are undoubtedly some who are now able to create such a trust or endowment fund. The plea is made that you give serious consideration to this request and suggestion.

"I give and bequeath"—please consider the nature and extent of a bequest that you can execute in behalf of and to the California Medical Association.*

* * *

SECRETARIES' ANNUAL CONFERENCE

On page 210 of this issue, members and county secretaries will find a digest of papers and discussions presented at the County Secretaries' Conference January 18. Members particularly are urged to devote sufficient time to read this informative report. In addition, also, be sure to read the minutes of the Council published in the February issue. These two reports will enable you to gain a greater insight as to what your Association is doing in your and the public's interests.

SOCIAL INSURANCES

In an address delivered before the annual meeting of mechanical engineers, R. Robert Jones, general manager of the Association of Casualty and Surety Executives, presents the following conclusions:

"I have dealt principally with the problems of Workmen's Compensation. I also have tried to make it clear that the newly impending social insurances present similar problems. The chief issue before us, however, is not how to correct the overlapping and inconsistencies of the present schemes, no matter how important such amendments may seem to be. The chief issue really is, how can industry bear the tremendous financial burdens imposed by the vast system of accident compensation, occupational disease benefits, old-age pensions, unemployment insurance, and various other social insurances. Even with workable laws and perfect administration, this issue would present grave dangers to our economic structure. But when accentuated by a hodgepodge of enactments devised by academic theorists in coöperation with political spoilsmen, and with their administration in the hands of bureaucrats and petty demagogues, this issue becomes the most serious one confronting America today. There is no easier approach to the economic reorganization of society and to the regimentation of business under government corporals, lieutenants, captains, colonels, and generals than bankrupting industry by the subtle process of making it responsible on a scale beyond its capacity for the health, welfare, and even improvidence of those in its service through accident and disease compensation, pensions, subsidies and other gratuities.

"Even if the present benefits prescribed by the multitude of social insurances do not particularly alarm, it must be remembered that the tendency in all such legislation is upward—toward increased payments by industry. The increase in workmen's compensation costs over a twenty-year period have been tremendous, and with occupational disease hazards recently added in many states, it has become terrifying. Undoubtedly the same tendency will be manifested in respect to the newer types of social insurance. What the results will be no man can tell, but the problem which American business must solve is not only gigantic as a whole, but complex in every detail.

"If the problem is to be solved at all, it cannot be solved by political methods, by passing resolutions or by speech-making. The whole subject is a highly technical one. It requires a careful study of all the factors involved; for illustration, that these social insurances in the aggregate may be highly detrimental to labor apparently has not been considered by labor leaders who are promoting these measures. The same is true of the politicians who have taken their cue from the labor organizations. The average worker knows nothing of the subject and consequently his opinion is based on what he has been told is his immediate self-interest. He does not comprehend the ultimate effect of such legislation upon him or his fellows, and, therefore, is easily misled by agitators who claim they are trying to help him. He does not realize that subsidies come from the same source as do wages, and that if the wage-well is dry, the subsidy pump will not work. This, however, is only one sector of the major problem, but it is one which needs to be examined by all concerned in the light of today's experience.

"If we are to continue to have legislation of the type I have been discussing, the problems it presents never can be satisfactorily solved unless they are entirely divorced from politics and vote-getting considerations. Subject to the perverting influences of politics, legislation of this type is a serious menace to the public welfare."

* * *

HOTEL ACCOMMODATIONS

By January 18, following several published notices to write for reservations, all the accommodations in Hotel Del Coronado were reserved by members. While this large advance reservation foretells a large attendance at our annual meeting, it does not mean that those who failed to secure early reservations must forego attendance.

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*See also editorial comment on page 154.

San Diego city affords ample, additional accommodations in the following first-class hotels:

Hotel San Diego—400 rooms. Rates, $2 to $6.
El Cortez Hotel—250 rooms. Rates, $3.50 to $8.
Pickwick Hotel—250 rooms. Rates, $2.50 to $8.
Stanford Hotel—150 rooms. Rates, $1.50 to $6.
U. S. Grant Hotel—500 rooms. Rates, $3.50 to $9.

Members are urged to make reservations, as the 1936 Exposition will cause a demand for rooms. There will be a ten-minute ferry service to Coronado, and meeting places can be reached in twenty-five minutes.

There are three reasons why our members should plan to spend the week of May 24 in San Diego:

First: Our sixty-fifth annual meeting, with its exceptional scientific and social program.

Second: The 1936 San Diego Exposition, featuring a Hall of Medical Science. and

Third: Decoration Day, holiday.

Make your plans now.

CONFERENCE OF COUNTY SECRETARIES

As previously imparted, a conference of county secretaries with the Council and the officers of the Association was held in San Francisco on January 18. The theme of the conference was "policies and problems of our Association."

County secretaries are the very important "key men" of our organization. In order to effectively discharge their responsibilities, it is vital that these officers be intimately familiar with all problems in order to obtain unity of action. The conference has been appraised as a forward movement in furthering Association objectives.

It is impossible to publish in full detail all of the addresses and discussions. Abstracts for the information of the individual member appear on page 210.

COUNTY VISITS

During February State Association officers made visits and addressed the following county meetings:

Santa Cruz, February 11 at Santa Cruz; Monterey, February 12 at Salinas; Imperial, February 17 at Brawley; Orange, February 18 at Santa Ana; Santa Barbara and Ventura, February 19 at Santa Maria; Hollywood February 20.

Gratifying attendance was recorded at all of these engagements.

INTRODUCTION OF RESOLUTIONS AT ANNUAL MEETING

By Council action two years ago county societies and delegates were requested to submit to the State Secretary, at least sixty days before the annual meeting, any resolutions that they contemplate introducing in the House of Delegates. The purpose of this request is to make it possible to publish such proposed resolutions in the Pre-Convention Bulletin for the advance information of all delegates.

In conformity with this precedent, delegates and county societies are respectfully requested to observe this procedure. It is quite desirable that proposed action be imparted to all delegates in order that they may consult with the county members whom they represent.

VAST SILENCE

An editor or radio broadcaster addresses his audience in the vast silence of open spaces, and then he waits and wonders. In the case of the editor, when the last page proof has been checked and the publication mailed—well, he waits for and welcomes constructive comment and relishes an occasional commendation. Does he receive them? Kicks, yes; constructive comment, now and then; commendation, rarely; vast silences, as a rule. That is why editors live hours in minutes.

This is not a plea for bouquets. The Editor and State Secretary are merely soliciting members' comments so as to know their problems and thoughts in order to be more helpful and render greater service. In order to reduce the vast area of silence and to evoke response, will you send in your expression on:

"What should be done to correct the practice of some doctors who bid for business from employers and insurance corporations by quoting cut or reduced fees?"

YOUR COUNTY SOCIETY

Numerical affiliations do not make a county society a going organization. Mere membership and payment of annual dues give evidence only that you can be of potential service—a possibility, unless awakened and induced to engage in active society work, classifies the member as a minor, nonproductive asset.

A going county society and the benefits derived from membership depend directly upon the individual member. A single soldier, squad, or even a platoon, never captured a trench. Objectives were reached by the fighting spirit and advance of companies, regiments, and divisions—all participating, in close liaison, in their forward movement. So, too, must it be with our county, districts, and state medical organization. As an individual, the member must subscribe his efforts for unit performance and action.

This observation and conclusion has been stated upon many occasions by those who carry the obligation of official duties. In spite of many repetitions it is still very common for a member to state that he does not attend his county meetings because he belongs to a dormant society and gets very little benefit from it. It is, therefore, necessary to persistently keep reminding members that "they *get* in just proportion to what they *give.*" In that respect our attitude continues to be intransigent.

A much-twanged string is the theme of medical organization; and yet, withal, a string capable of yielding indefinitely new or varied notes. Organization has become in medicine, as in almost every other department of human activity, the watchword of endeavor and achievement. Our medical societies are the great postgraduate schools of the profession, where knowledge is increased and the individual character developed. The enthusiasm engendered, the energy awakened by the attrition of mind against mind in the medical society meeting cannot be otherwise than of incalculable value. No medical society can rest on its oars.

The great underlying principle of all medical organization is to reach the individual doctor, to cause him to realize he has other responsibilities than those pertaining to his immediate clientele, to broaden his mental vision, to awaken him to the fact that association with his fellows will enable him to mold public opinion and wield an influence in the affairs of men. To possess vitality the doctor must be organically united to the general body of his profession. Let the doctor's interest in and devotion to his county society never flag or wane. Let every member keep in harness; work and be ready to work.

When you, lone member, accept and conform to these principles, your society benefits, through membership, will mount to the highest pinnacle. It is yours to choose the sum total of benefit that you derive.

MONTH'S HAPPENINGS

- February was a busy month, with seven meetings with nine county societies.
- The Committee on Public Relations held two meetings.
- The Executive Committee met on the last Saturday of the month. The Council will meet in San Francisco on April 11.
- The Cancer Commission has arranged a splendid program for the Sunday conference preceding our annual meeting.
- No councilor or officer now holds nor did he ever hold any block of room reservations in the Coronado Hotel for the annual meeting. In several preceding issues members were urged to write for reservations. As a result the members who wrote early secured reservations and exhausted the headquarters hotel facilities. Excellent accommodations may now be secured in San Diego.
- The Association, in coöperation with the San Diego County Medical Society, is sponsoring and directing the

Hall of Medical Science with 22,000 square feet of medical exhibits in the San Diego Exposition that opened February 12 and closes September 9.

• To prepare annual program copy for publication demands voluminous correspondence, attention to detail and securing of abstracts, officers' and committee reports—of course, proof is read and re-read. Preparation is begun in January and ends in a final scramble in April. Thirty-eight separate individual details are involved.

• Some two thousand members' dues were received during the month. This involves the following steps for each member:

1. Entering on books.
2. Entering on personal record card.
3. Checking with mailing list.
4. Filling in name on certificate.
5. Addressing envelope for certificate.
6. Sending receipt to county secretary.
7. Reporting to American Medical Association.
8. Stamping envelope.

Sixteen thousand operations!

CALIFORNIA MEDICAL ASSOCIATION COUNTY SOCIETY SECRETARIES' CONFERENCE*

On Saturday, January 18, 1936, at the Sir Francis Drake Hotel in San Francisco, was held the first annual conference of officers of the California Medical Association and of secretaries of component county medical societies of the state. The Association Secretary, Dr. Frederick C. Warnshuis, presided.

The reports of the informal talks by State Association officers and county society secretaries is here printed for the information of the members of the California Medical Association.

REPORT OF PROCEEDINGS: SAN FRANCISCO JANUARY 18, 1936

The program was as follows:

9:30 a. m.

Opening Statement: President Peers.
Value of Membership Affiliations: President-Elect Pallette.
Functions of the Council: Chairman T. Henshaw Kelly.
California and Western Medicine: Editor George H. Kress.
Legislation: Junius B. Harris.
Graduate Medicine: C. G. Toland.
Public Relations: C. A. Dukes.
Legal Services: Hartley F. Peart.
Luncheon.

1:30 p. m.

Round Table: Questions and Answers.
Membership Campaigns.
Secretary Reports.
Legislation.
Health Institutes.
County Programs.
Note: Secretaries are requested to send in questions.
Adjournment (4:30 p. m.).

MORNING SESSION

* * *

OPENING STATEMENT BY THE ASSOCIATION SECRETARY, DR. FREDERICK C. WARNSHUIS

First, we are asking every county secretary, councilor, state officer, and guest to register in order that we may have a record of those who are in attendance. Secondly, there is being passed around, to the county secretaries only, an expense voucher to fill out, giving the regular railroad fare and your Pullman fare, if you came by a Pullman; and if your travel was of such great distance that you had to use hotel accommodations, en route, you will include that in your expense account. If you will forward it to the desk, we shall see, before the end of the day, that a voucher is given to each of you to reimburse you for your expenses. In some instances the county secretary was unable to attend, and the Council of the California Medical Association having ruled that the county society should then designate a delegate, or a representative, that delegate or representative, of course, will fill in an expense account.

Now you will see around this room a few microphones and three, four, or five stenographers. They are not instituted or placed here for the purpose of suppressing your remarks or discussions. In the first place, this microphone is the first ediphone west of Chicago recording public meetings on a wax cylinder, and an experiment is being tried out. These young ladies whom you see around here are students in the Zweegman School for Medical Secretaries, and they have come here in order to gain experience in medical reporting, a need for which is great on the Pacific Coast, because we have had considerable difficulty in securing competent medical reporters.

If there is anything that I or the office staff of the California Medical Association can do for you while you are here, please feel free to command us. All our facilities and all our services are at your disposal. We want to make you comfortable and at home, so please don't hesitate to ask us, because it will be our pleasure to serve.

I am sure that I voice the sentiments of the Council and the officers of the Association in expressing their appreciation for the time that each of you has taken and now give to come to this meeting, a meeting which is held for the purpose of causing the key men of our State Association, namely, the county secretaries and the county officers, to become more familiar with the problems of our State Medical Association in order that we may reflect greater organizational activities in meeting the problems and questions that confront us and the profession in our relationships to the public. And so in behalf of the Council and the officers, I want to express a very sincere appreciation. We hope you will find that this meeting has been one of profit, and that you will return home with new ideas and new vision of what is being attempted in organized efforts in California.

Without further effusion, therefore, it is my privilege and pleasure now to present to you the first speaker on the program, the president of the California Medical Association, Dr. Robert A. Peers of Colfax.

REMARKS BY THE ASSOCIATION PRESIDENT, DR. ROBERT A. PEERS

Secretary Warnshuis, President-elect Pallette, Members of the Council, and Representatives of the various Component County Societies: It is certainly a pleasure for me to see such a very satisfactory audience this morning. As you know, as I have been going about the state talking to the various county societies, I have emphasized the importance of this meeting which we are holding today. It is very gratifying to see how secretaries and other officers of the county societies have responded. I feel that this is, or can be made one of the most important meetings of the year. As I told you at the various county society meetings, we have every year a luncheon at the time of the annual convention, and the fact that that luncheon is of extreme importance apparently has not been appreciated by the county officers. And so I have been emphasizing that occasion and also this meeting. I think it can be a very important meeting, because I believe that this group, composed of the state and county officers, can, if they wish, determine the policies of the California Medical Association. And when I say they can determine the Association's policies, I do not wish you to think that I believe we should take control of our organization out of the hands of the 5,402 members of the California Medical Association. What I mean is, that you, coming here and meeting with us and discussing the various problems of organized medicine, can carry back to your several societies information which will better enable your membership to grapple with the Association's problems and so better to solve them. As Doctor Warnshuis has told you, the secretaries are the key men of the different organizations. I think that perhaps the different county societies take more care in selecting their secretaries than they do in choosing other officers, and I believe that they are wise in doing so.

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* Editor's Note.—Reference to this conference has been made in previous issues of California and Western Medicine, as follows: December, 1935, pages 445 and 447, item 6; January, 1936, pages 52 and 53, item 4; February, 1936, pages 74 and 115.

I think sometimes that the county societies should exercise more care in selecting those whom they send to the House of Delegates of the California Medical Association, and I think that meetings of this sort will help because you men coming from the various county societies, learning more about the problems of organized medicine, knowing better just what situations we have to meet, will go back home and inform your members so that they will pick the best qualified men to represent them at the State Association meetings.

It is a very great pleasure, as I say, to see so many present; and while I am here I want to tell you how much I have enjoyed my trips throughout the state, visiting the various county societies. It has been a great pleasure, and I have appreciated very much the warm welcome received at the hands of all the members of the county societies.

I hope that this mid-term meeting, as I might call it, will become an annual affair. As I said at the beginning, it is an extremely important meeting, and I know that a great deal of good will come out of it. I know that you will carry back to your homes a real message.

Comments by Presiding Officer Warnshuis

I have often said that sometimes, frequently, good county secretaries are finally spoiled by being elevated to the office of president. Doctor Peers is an exception to that rule. He has been secretary of the Placer County Medical Society, I believe, for about thirty years; now he is made president of the Association, and so far I have not noticed any mould about him, though I have ridden around the state with him for a good many miles.

The same thing holds true for the next speaker, President-elect Pallette, who has rendered a tremendous amount of service to his local organization and to the state organization, and has justly been elevated to the office of president-elect. It is my pleasure to introduce to you President-elect Pallette of Los Angeles, who will talk to you on "The Value of Membership Affiliation":

REMARKS BY THE PRESIDENT-ELECT, DR. EDWARD M. PALLETTE

Mr. Chairman, Ladies, and Gentlemen: About a year ago the State Council felt that some effort should be made to increase the membership of the California Medical Association. Accordingly the secretaries of the different county societies were asked to make a survey of nonmembers with the idea, especially, of ascertaining the number who were desirable but not yet members. Now, inasmuch as most of the counties of the state are represented here, I think it may be well to take time to read some of the results of this survey by counties. Alameda County had 459 members, or 60 per cent of all registered doctors in the county. That 60 per cent does not mean the percentage of desirable members, but of registered men in the county. Butte County, 21 members, or 93 per cent—I think that is the highest. Contra Costa, 45, or 64 per cent. Fresno, 109, or 78 per cent. Madera, 12, or 75 per cent. Humboldt, 31, or 86 per cent. Imperial, 27, or 73 per cent. Inyo-Kern, 51, or 77 per cent. Las Plumas, 10, or 63 per cent. Los Angeles, 2,284, but only 58 per cent. Marin, 29, or 67 per cent. Mendocino, 20, or 72 per cent. Merced, 23, or 70 per cent. Monterey, 47, or 69 per cent. Napa, 30, (I neglected to look up Napa's registration, so I do not know its percentage). Orange, 113, or 77 per cent. Placer, 29, or 75 per cent. Riverside, 58, or 59 per cent. Sacramento, 135, or 81 per cent. San Benito, 5, or 50 per cent. San Bernardino, 114, or 70 per cent. San Diego, 232, or 57 per cent. San Francisco, 809, or 52 per cent. Remember, these are registered, not necessarily desirable men. San Joaquin, 76, or 68 per cent. San Mateo, 50, or 67 per cent. Santa Barbara, 100, or 83 per cent. Santa Clara, 165, or 62 per cent. Santa Cruz, 32, or 54 per cent. Shasta, 11, or 50 per cent. Siskiyou, 19, or 79 per cent. Solano, 21, or 50 per cent. Sonoma, 44, or 62 per cent. Stanislaus, 38, or 69 per cent. Tehama, 12, or 86 per cent. Tulare, 39, or 67 per cent. Tuolumne, 3, or 43 per cent. Ventura, 33, or 55 per cent. Yolo-Colusa-Glenn, 25, or 64 per cent. Yuba-Sutter, 15, or 65 per cent. Kings, 10, or 59 per cent. San Luis Obispo, 23, or 64 per cent.

The California Medical Association has 6 associate members, 12 honorary, 59 retired, 5,325 active, for a total of 5,402, a gain of 333 during the past year. And the American Medical Association has about 51 per cent of all the registered doctors in America. The California Medical Association probably has about the same, but that is rather an unfair comparison, because we have in California, I am sure, far more retired men than has any other state. Los Angeles County has three hundred retired doctors, men who have practiced in the East and have come out here to rest. They do a little something, but not very much. So if our percentage is the same as that of the American Medical Association, it is really higher, based on men who are really eligible and desirable. In fact, as a result of this survey, Doctor Warnshuis' office estimates that 83⅓ per cent of the eligible men in the State of California are members, which leaves only about 17 per cent who should be members and are not. Now our problem is to get that 17 per cent. I have some notes from three of the counties as to how they have put on membership drives, and as they are the larger counties, I think perhaps it might be well to read these. Solicitation of eligible doctors of medicine for membership in the Los Angeles County Medical Association was started, as an incidental activity, by two men some eighteen months ago. We have down there a $100 membership fee—$100 from men coming in from the city, and $50 from outside the city. These men joining sign notes very often, so a year ago it was noted that we had about $90,000 outstanding notes, and we put two men on commission and salary to go out and bring in some of these notes, and, incidentally, they solicited members from lists which were given to them by the office. Approximately 110 new members were brought in during the year by these two men. Previous to this personal contact work in seeking new members, a leaflet illustrating the advantages of membership was sent to the list of eligibles. I have a number of copies of this leaflet here. It is too long for me to read, but it is a very good setting forth of the objects of organized medicine which ought to appeal to nonmembers who should be members, and there is a stack of those here, not enough to go around, but to those of you who are especially interested, we would be glad to give a copy. We found that there were men who had not joined the county society because they felt that they must first be invited to join, and that it is not difficult to get these men to join. Personal solicitation has several advantages. If the one who does the soliciting knows what the Association stands for, and what it can offer its members, he is able to sell the candidate on his Association, which results in a member who knows why he is a member and is willing to support the ideals of medicine, as represented by his Association. He is willing to work when called upon. He has not become a member merely for the sake of being a member. These solicitors were told to emphasize to the prospective member, not so much his personal gain by joining, although that is great, but rather his duty, to appeal to his loyalty to his profession.

In San Francisco County, lists of nonmembers were made from the State Board directory and submitted to the California Medical Association and State Board of Medical Examiners for information from their files tending to eliminate undesirables. A subcommittee of several members from each approved hospital was appointed by the chairman of the Membership Committee, and nonmembers on the staff of each hospital were approached through these subcommittees. The names of those remaining on the State Board list were then presented to a meeting of the Membership Committee for interview and report. The names of all those aged physicians who had never affiliated through all their years of practice in San Francisco, and those known to be ill or not in practice, as well as the undesirables, were eliminated, which left only those actually in practice and of an age where affiliation would be of advantage to them. The result of this process of elimination showed that 156 out of 712 nonmembers were desirable, or rather, eligible. I think San Francisco figures show that 85 per cent of the men really eligible, or desirable, are members at the present time.

In Alameda County, four or five years ago, a survey was made of all the men who were not members of the Alameda County Society. Those who were thought eligible were approached through one of their friends, who asked them to apply for membership. In Alameda County the county society never appears as inviting a man to become a member; because, after careful investigation, it sometimes happens that men who were considered eligible, are really not eligible and cannot be accepted as members. The eligible members in Alameda County at that time did not number many, but these were invited through friends to make application, and some increase in membership occurred. Since that time we have watched every man who comes into the county. At present we have practically all of the eligible members in the Society except some men who have been members and have dropped out on account of financial difficulties, or those who feel they are not financially able to join the Society.

The San Francisco Society, in 1932, took in 87 new members; in 1933, 31; in 1934, 79; and in 1935, 64. Now this matter of membership, we feel, is a very important one. We get busy with our scientific programs, busy with questions of medical economics and public policy, and all that sort of thing; but unless we have a strong membership, we cannot go very far with these other things, and I have a feeling that every effort should be bent to getting in this 17 per cent who are not in. I should like to unionize the medical profession, that is, in the sense of making it so strong and a membership so desirable that every man who can will come in, and that every man who is able to pay his dues will stay in, even if he has to skimp very definitely in other ways.

I think that, at the present time, if a doctor practicing medicine is not a member of his county society, we recognize there is something queer about him, there is something wrong. I think the public is doing that. I think more and more our patients know whether or not we are members of the County Medical Society, and I think that feeling about it grows; so that if a man who is eligible is not in, there is a question mark after his name. Thank you.

Comments by Presiding Officer Warnshuis

In our program we have arranged for a round-table discussion this afternoon; therefore, on these addresses this morning we are not asking for any questions or any discussions. We hope, however, that if any thought or question occurs to you, you will jot it down in your memorandum book and ask the question during this afternoon's round-table.

It is quite clear that to solve a problem there must be a definite understanding of the problem. Medicine, of course, has many problems. Through the medium of our official journal, CALIFORNIA AND WESTERN MEDICINE, we are endeavoring each month to present to the members of the Association the various problems that confront the profession, as well as to set forth the policies and objectives of the Association. This is done in a very capable manner, as Doctor Peers always says when he meets with the County Medical Societies, "Doctor Kress gives us a good official journal." I think that we can have every reason to be proud of CALIFORNIA AND WESTERN MEDICINE. I have for a number of years received the publications, the official journals of the other state organizations of our country that constitute the American Medical Association, and I can say without hesitancy at all that CALIFORNIA AND WESTERN MEDICINE reflects as high a type of editorship as any other journal in the country. I am, therefore, pleased to present to you the editor who has made CALIFORNIA AND WESTERN MEDICINE the journal that it is, and who is always alert to the interests of the profession—Doctor Kress:

REMARKS BY THE EDITOR, DR. GEORGE H. KRESS

Chairman and Officers of the Society: My thanks for the kind words that Doctor Warnshuis said about our official journal. Those of us who live out in California love California so intensely that we think it should have the best of everything. This is our state; it is one of the outstanding commonwealths of the Union, and so our State Medical Association should measure up in the same splendid manner; and as an outward expression of that State Association, it naturally follows that we would wish our official publication, likewise, to measure up to the same standards.

Some of you who have been long associated with organization work in our state know somewhat of the history of our official journal. It came into being away back in 1902 through the determination of a very wonderful man who has passed on to the Great Beyond, the late Dr. Philip Mills Jones—a most unusual character who, if he had not been with us, and so thoroughly and so early in his career among us become part and parcel of the fiber of our being, would have left a deep void in organized medicine in California; because I doubt very much whether, without him, at the time that he brought the *Journal of the Medical Society of the State of California* into existence, that publication would ever have been born. As a matter of fact, it came into being on a very slender shoestring, and year after year lived on a shoestring type of economic existence. Phil Jones was a fighter: he feared nobody nor anything under any condition when he believed his cause was right, and in the first two or three years of the existence of our JOURNAL, when other state medical journals throughout the United States were putting up a "blah" reaction to things that were taking place in the American Medical Association, Phil Jones threw down the gauntlet of battle to that association, and told them to clean house and to rid the advertising pages of the *Journal of the American Medical Association* of off-color advertising. They threatened him and made fun of him; but he carried the fight into the House of Delegates of the American Medical Association, and won. He won because he had a righteous cause; he had a clever brain, and a determination to see the thing through. And the men who spoke slightingly of him in the beginning later on were very proud to have him as a member of the American Medical Association Board of Trustees, where he was reëlected several terms, occupying that position at the time of his death when, in the great influenza epidemic, he gave up his life.

I told you that he feared nothing. It may be of interest to you to know that in those early days one of the fights that he made was against two very prominent citizens of California, in San Francisco, the —— brothers, the owners and exploiters of the "Viavi" treatment. I think they were members of the Bohemian Club and Phil was also a member, but that made no difference to him. He smashed into them, and gave them battle, and they came back at him in the courts. What Phil printed, you will remember, was somewhat libelous and he had to make a retraction, which he did. That is all they got out of him, because Phil did not have a cent and the Society did not have a cent. So the —— brothers could not get anything except the little printed retraction. Had that happened in later days, after our own Association had accumulated some funds, it might have been different. It is important for us to remember this. In the same way, down in Los Angeles County we are learning more and more to be on our toes and to be keenly alert to our responsibilities, now that we own property that is worth several hundreds of thousands of dollars. We do not wish to take any foolish militant steps in the way of approach or battle to individuals who can sue us and endanger our material possessions. In making mention of what Philip Jones did for the California and American Medical Associations, I must refer also to the original printers of our official journal, the Barry Printing Company. We should not forget that the Barry Company, at a time when it also possessed very limited funds, carried the accounts of our Association sometimes for months at a time before they ever received any money. Our printers, the Barry Company, had faith in the Association and the Association had faith in them, and when we think of Philip Mills Jones we can, likewise, think kindly of the men, the printing men, who, though they were in business to earn a profit on their printing products, yet believed in us at a time when many of our own members did not have faith that the organization could carry on.

Phil Jones passed on in the latter war days, and the late Dr. William Musgrave took up the reins of editorship. William Musgrave also gave very devoted service and helped bring up the JOURNAL in many, many ways. And then when William Musgrave laid down his pen, Doctor Pope and I were delegated to take up the work; and when later Doctor Pope took over the responsibility of the secretaryship alone, the task of the editorship devolved upon me.

It is very gratifying, therefore, to have Doctor Warnshuis, who has had such a long experience in organized medicine, both in the East and in our own state, who was speaker of the House of Delegates of the American Medical Association, and who, for a number of years has had most unusual opportunities for contact with all of the leaders of organized medicine throughout the Union, state that in his opinion CALIFORNIA AND WESTERN MEDICINE measures up with the best of the state journals. We certainly want it to be as good, and it is our desire to have it better than any other state medical journal. We must remember this in regard to medical publications: there are in our own country two types. We have the publications that deal with medical topics, pure and simple—the specialty and research journals; and then we have publications that are, first of all, the expressions of organized medicine. And to your present editor CALIFORNIA AND WESTERN MEDICINE exists, not primarily as a publication for the portrayal of scientific knowledge, but, rather, as the mouthpiece of organized medicine in California, to guard the welfare of the physicians in California; because, unless the economic and other interests of the members of the medical profession are properly safeguarded, there will be very little scientific advance. And then we know this also, that with the vast amount of medical literature that comes out in the form of printed books and in numerous medical journals, whether we printed our contributions in the way of scientific topics or not, would not in one sense make such a vast deal of difference in the world. Perhaps the big inspiration that comes to us from scientific papers which are printed in our official journal is this, that we know the men who are the authors of the papers, and who take part in the discussions of the articles, and the personal touch and the personal knowledge of these men, and the fact that they are confronted with problems akin to our own as we meet them from day to day in our offices, makes what they have to tell us of special value. And then, also, many of these articles have to do particularly with diseases and conditions that are applicable especially to California, and therefore should be of particular value to us.

You may be interested in knowing how the selection of these scientific articles is made. Many years ago when our official journal came into existence, we did not have enough scientific material to fill the pages, and Doctor Jones was obliged to go hither and thither trying to get an adequate number of papers to make the JOURNAL measure up in proper form. Now the Association has grown until it is one of the outstanding state medical units of America; and at our annual sessions, with twelve up and going scientific sections, we have practically twice as many papers as we can give space to in the course of a year. That always creates somewhat of a distressing situation, because a man, naturally, after he has given a good deal of time to the preparation of a paper would like to see the presentation of it in the official journal of the Association. We must remember, also, while we have some 5,400 members in the Society, that only 500 to 700 are specialists; but these 500 to 700, as a rule, are very prolific writers and, being specialists, they are extremely anxious to have the presentation of their viewpoints reach all the members of the Association. The editor, when he makes his selections, in coöperation with the Publication Committee, uses the axe very generously upon his colleagues in the specialties, and particularly so if they have indulged in a presentation of subject-matter that should go into a technical journal. I think you will agree that this is the proper course. Our official journal should carry primarily scientific material that has an appeal to the great majority of our members, and your editor thinks always first in terms of the men who are in general practice, rather than in terms of the men who, as specialists, have narrower interests.

We are very anxious to have articles come to us from all portion of the state. The editor is embarrassed again and again when he makes up his runs for the next month's issue, to find too many San Francisco or too many Los Angeles men on the lists of contributors; and yet he has no other choice lots of times because, with the larger number of members in those metropolitan centers, it is only natural that we should have from those cities a larger number of papers in our unpublished files. I want you to know that whenever papers are read in the annual sessions by members from places other than these two metropolitan centers, if those papers measure up at all in a way that we can accept them easily, we go out of our way to use them. For we want all parts of the state represented in the printed pages of the official journal and we desire the printed journal to be a true cross-section of this big geographical domain that we call California. You secretaries, therefore, can be of great service in this. Even though some of you are located in smaller counties and in cities of lesser population, diseases of unusual nature take place in your own regions just as they do in the metropolitan centers. When, therefore, in one of your scientific programs you hear from this or that member of your county society a very excellent case report, ask him to put into form for consideration by the official journal. Case reports, for instance, do not take a very large amount of space, and I think they have a very great appeal to many members in general practice, and if you will keep that thought in mind you can render a real service to your own component societies by having them represented from time to time in the printed pages, and you will also be doing a service to the majority of our readers.

The other phase of the official journal has to do with organized medicine and, as Doctor Warnshuis has well said, he and I both try to present to you, from month to month, all matters of policy that come before the Council of the State Association, and do try to carry you along with activities of the State Association's officers and departments so that you will understand the problems that the officers are considering, and what their leanings and their lines of thinking on the solution of various problems happen to be. Now if, from time to time, Doctor Warnshuis or I write something in our respective columns that you do not like, or that you think is in error, both of us would esteem it greatly if you would feel quite free to write to us, and in full frankness. We shall be glad to take your suggestions into consideration, and if you think it is a matter of vital importance and want your letters of protest printed, we shall be happy to print them so that your points of view can be disseminated to the other members of the profession. I hope, for these reasons, that the secretaries do read the official journal, for I do not know how many members of our Association read it; sometimes you hear fellows say that nobody reads it! That never worries me, because I cannot make myself think that men would refuse to read an official publication of their Association portraying the best scientific thought, as exemplified in the annual session papers and as presented by the official representatives of the organization. Something would surely be wrong with you all if you had in office a group of men, or at your annual session had members of the profession read papers, who did not know what they were talking about. I think it is very important that, as county secretaries, you should read everything that Doctor Warnshuis calls to your attention from month to month, and what the editor may have to say on matters of basic policy; because in every component county society there must be some leadership in organized medicine, and you who are secretaries are the particular officers having that responsibility. You are in a position, in your contact with fellow members, to carry on a quiet propaganda and to find out what the members of your respective county units think about this or that subject. If, then, you will coöperate with us and use the central office of the Association as a place where at any time you can find out something about anything in which you are interested, you will be doing both your component county societies and the State Association a service.

I do not know whether you like the typographical form of the State Journal, but it is the form that we have gradually evolved, after much study and careful experiment, as one that should have an appeal. We have tried to standardize it somewhat, so that from month to month you will know where to find subject-matter in which you may have a special interest. But even in the matter of typographical form, if you feel that we ought to change something and could possibly make it better, I hope that each one of you will feel free to contact us.

In the matter of letters from your county societies, we are very pleased to publish them, although we must occasionally use the pencil on recurring statements. I can understand how you write minutes and send us copies; but, after all, what you write for your own society we cannot always print in the same form, and the editor, for want of space, must have no hesitancy in deleting such recurrent sentences as "Minutes approved and read."

I ask you to keep in mind, also, the importance of this one point: that if, in your minutes, you mention disciplinary action concerning any member, or of nonmembers in affiliated professions, avoid sending it in as part of your proceedings for publication, because if it should not catch my eye and slip in we might be subjected to a libel suit. Libel suits are easily entered in the courts—a thing well worth remembering.

I want to thank you all, and the members of your respective units, for the splendid coöperation that you have given through these years during which it has been my pleasure to be identified with your official journal. I wish you to know that, with the other officers of the Association, I esteem myself only your servant, and that my ambition, which is the same as the ambition of your other officers, is to represent you in a manner that is satisfactory to you, and such as will work for the further advancement of this great organization that we call the California Medical Association; a society which has had such a long and distinguished history, and which has ahead of it an even brighter future than in its glorious days of the past! Thank you very much. (Applause.)

Comments by Presiding Officer Warnshuis

I am sure Doctor Kress will yield to me and permit me to make one or two supplementary remarks to his statement regarding California and Western Medicine. As some of you secretaries know, I have said at your various county meetings that it costs the Council a little over a thousand dollars a year to buy the wrappers which go around the Journal that is sent to you. You should, therefore, justify that expenditure by your Council by having your members at least tear the wrappers off the Journal, if they do not read it.

Now, as Doctor Kress has said, we do solicit and invite a report of every meeting that you have, because we are anxious to make a historical record of medical life and activities of today in California so that the men of tomorrow, twenty-five to fifty years hence, may know what we did in laying the groundwork for the glories and the comfort of the practice of medicine they are going to enjoy through the hardships we are passing through. And so I would suggest that each month those of you who send notices of your meetings to your members include, if possible, reference to some of the articles that appear in the Journal that are of vital importance to the members.

The other thing that I want to recall, to ask your support and the support of your members, is: the Journal is supported and paid for practically through its advertising income. Last year the Journal earned a little over $23,000 in advertising income. It is only possible to maintain that income if we show to the advertiser that he gets returns upon his investment. Therefore, we ask you, from time to time, to remind your members to patronize the advertisers of the Journal. The suggestion has been made—and it is a good one—that every doctor is afflicted or bothered by a horde of detail men who come to his office regarding various preparations and appliances that they want to sell him. A good way to get rid of them quickly is to ask, "Are you advertising in California and Western Medicine?" This is thrown out by way of suggestion.

Last Sunday, in Los Angeles, the Scientific Committee and the officers of the twelve scientific sections met for the purpose of completing the program for our Coronado meeting in the week of May 25. During the discussion of the program, we came to the Section on Neuropsychiatry. There was a vacancy, and they did not know what to put in for that paper, so I suggested that some of our psychiatrists make a psychoanalysis of some of those fellow citizens who, in the state primaries, will seek to represent us in the legislative halls of our nation, our state, and our country. (Laughter.) I do not know of anybody who could make that analysis—an actual analysis from personal experience—better than Junius Harris, chairman of our Legislative Committee:

REMARKS BY THE CHAIRMAN OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION, DR. JUNIUS B. HARRIS

Mr. Chairman: You know it is a well-known fact that those who live and deal with nuts so long get quite that way themselves. I am sorry that I always have to plunk on this one string of mine, the subject of legislation, but you keep me on as chairman of the committee, and I guess as long as I hold that job down I shall have to talk about it in the same way.

I have here a couple of crude charts, and I can tell you that these figures are not any more out of line than some of the men they represent. This is a picture of the State Senate as composed today. In the upper row are the senators who are the holdovers, that is, who stay in and sit in the Senate at the next legislature. The lower row represents the senators who go out—will not sit in the next legislature unless they are reëlected next fall. These are the holdovers, the men from the even districts, and these are the men from the odd districts that go out this year. I have represented the men whose acts have shown they are broad-minded, interested in public health and in organized medicine and in our efforts—in green, using the stop and go signals. Those who are dead against us, such as the senator who said, "When I get the doctors where I want them, I'm going to stick a knife into them and break it off" (Doctor Gibbons was there and heard it), are represented in solid red. You would think the work was easy for your Legislative Committee. Well, in the Senate it is not so bad. So you see that, of those men who are to remain and sit in judgment and make our public health laws in the upper house next time, the dominating color is green. Just, briefly, speaking of individual senators, I can say that this man (pointing) is very satisfactory. This man here has always been pretty good for us, but there is a little yellow streak in him.

The Senate is the farmers' house. Every county has a senator, so you see these big, rich counties like Los Angeles have only one senator, while a small county like Sacramento has also one whole senator. So the farmer predominates in the Senate. In the Assembly it is the rising young attorney who is trying to come up in the world and is possibly affiliated with bar associations or what-not. He gets himself elected as the first stepping-stone. So that is the attorneys' house.

With the rising unrest about county hospitals, we meet the plan of putting county hospitals on the same basis as our schools, and beginning state medicine. The propagandists ramify through Parent-Teachers' Associations and through the educational lobbies; I think principally through educational lobbies because the poor school teachers do anything their leaders tell them to do—they do not seem to reason the thing out themselves. Possibly we will be able to effect a change in that policy, but they seem to stampede wherever their leaders—there are five of them—tell them to go.

These men (indicating chart) fight our battles for us right down the line. One man here is always talking about how good patent medicine is, never fails to tell how much better it is than the good old allopathic doses; but he does not do very much harm.

Now in this row (points) are the men who go out, and of those whose terms expire we have this man who is absolutely dead against us. The dentists say that he feels bad that he has been against us, that he is trying to make amends. Nevertheless, this is the record, and it does not matter what he promises or how many tears he sheds about it. This man here is pretty fair. He has never done anything against us, but he is a fellow that you cannot depend on much; he will run out on committee meetings. He will promise he will be there and will be the fifth vote you need to block some obnoxious public health measure, and then will be playing pool some place or something and you cannot get hold of him. This fellow here, no one knows what he will do and he does not know. The dentists, too, throw up their hands when you mention him.

Some of these men that are going out are running for Congress and they will not be legislative candidates. It has been stated that two of these men are retiring from political life, so they will not be back. So you see that we as citizens, as well as medical men, should be interested in the election of a large number of representatives to go back to our upper house, there to make the laws that govern our practice; because, as you well know, the practice of medicine is absolutely at the whim, in California, of the legislature. Whatever the legislature wants to do about our practice it can do legally.

But the real grief to your Committee on Legislation does not come in the Senate—it comes in the lower house, in the Assembly. In the first place, the Senate is a higher house; it is a better organized house, for there are just half as many of them. There are only forty senators, while in the Assembly here you have eighty men to contend with. Eighty men to meet, eighty different minds to calibrate. Many of these assemblymen are experienced men in legislation, but a great many of them are not.

Remember that these assemblymen come up for reëlection. You see they are just elected for the two years, so that they go out. There is a whole new eighty elected in November, 1936.

Then we have, on down the line here (points at circles) out-and-out enemies of medicine. This man is running for the Senate next time. I think he will be elected, do not know. Here is a good friend. Here is an enemy. Here is a good friend of medicine. There is an enemy, and here is a good friend. This man is running for Congress. Two bad ones in here. This man is running for the Senate. That man is not going to run.

From all this you can see in the Assemby why we have had such a terrible time the past session. That is where we had our battle on No. 471, and we had a great many other battles in committee rooms, where the discussions do not come out in the records. We had plenty of grief in the Assembly; that is the thing that kept us up o' nights. These men are making the laws that govern public health and medical practice.

I know that when the members of the Auxiliary were canvassing in Los Angeles for funds in the matter of Amendments 9 and 17 some of the doctors there said, "What is the matter with the profession today? We never had to do this when I was a young fellow; I think you are going out and stirring these people up. I think the more you fight them the worse off you are." And all that sort of talk. However, if we did not have some sort of organization I do not know where we would be. You can look in your American Medical Association "Bulletin" and see the laws that were proposed and those that were passed all over the nation, showing the influence of the half-baked and half-scientific or pseudo-scientific person who entered or wants to enter the practice of medicine by the back-door route. In Connecticut the chiropractors now have every right to treat compensation cases; they are recognized by the legislature—this last legislature—to come in and treat on an equal footing with regular physicians in industrial accident cases. They have had that law up in California. This last time we beat it. It was proposed in nine states—they are hammering away—they made Connecticut. Now in New York, in the legislature next time they will say, "Our neighboring state Connecticut has this law." That is the way they get in—the old precedent and the old practice. In Illinois and Vermont this year (if it can be so construed, and there are many men who say that it can) corporations can practice medicine. In Illinois a law was proposed that corporations be permitted to practice medicine, which was defeated, and another law went through wherein it is quite possible that medical practice is included in the furnishing of drugs, medicines, and hospitalization. It is a bad law when it legalizes the practice of medicine by corporations. I might tell Doctor Kress, but I suppose he is familiar with it already, that the chiropractors are the boys who assailed the Basic Science Law, and in Wisconsin tried to become exempt from the operation of that law. In Washington, where they have a Basic Science Law, they tried to put over another, superseding the existing law, which would permit them to come on in. I never thought it would pinch chiropractors, but I guess it is pinching them; or why should they be squealing? All over our nation they are making a bitter fight to knock down public-health standards and the standards of medical practice. All sorts of nondescript groups are coming in, so it is not California alone that is going wild. The phenomenon is in operation all over the United States, from North to South and from East to West.

One of our pressing legislative problems is, of course, county medicine. The problem is becoming acute, and it may become the big issue of the hour for us.

And then the antivivisectionists, the boys and girls who espouse the dog bill, are obtaining signatures now to put the humane pound bill on the ballot at the next general election. They do not think that they can get it through the legislature, so they are going before the people.

The backers of Senate Bill No. 471 have not given up by a whole lot. They are a pretty well-financed group, as you know, and they are preparing some sort of a bill.

Most of us are familiar with the Basic Science Law, and it should be given special consideration later. I do not ask you all to be politicians, ward-heelers or anything of the kind, but our very future and existence hangs on this group depicted right here on this chart. Those men who have been friendly to medicine and open-minded on affairs of public health should receive our unqualified support. I think we should interview every candidate as he announces his candidacy for the Assembly, or rather, have a committee interview him to get his stand on the subject of public health and the problems that confront medicine. Sometimes they will not tell you the truth, and they will wriggle out of the thing; but at least you can size them up, look them over, and report back as to what are your reactions toward them. It would be most helpful if the men from the districts would get to know these men, know who they are before you send them up to the "columbarium," as they call it in Sacramento. Thank you. (Laughter and applause.)

Comments by Presiding Officer Warnshuis

The Council is composed of a body of self-sacrificing men who give much of their time each year in the interests of the Association. I sometimes wish that every member at some time could attend a meeting of the Council and see the manner in which your councilors discharge their responsibility. Probably one of the reasons why our Council has been so effective is because of one of its able members, Dr. T. Henshaw Kelly, who will now speak upon the functions of the Council:

REMARKS BY THE CHAIRMAN OF THE COUNCIL, DR. T. HENSHAW KELLY

The Council, as you all know, is composed of nine councilors elected from nine councilor districts in the state—six councilors-at-large elected from any part of the state, the president, the president-elect, the speaker of the House of Delegates, the chairman of the Committee on Public Relations, and the secretary and the editor; and according to the Constitution it is the administrative body and attends to the business of the Association between the meetings of the House of Delegates. It is the body which, in the interim between annual sessions or other meetings of the House of Delegates, has the sole right to approve the appropriation of moneys of the Association, to conserve the funds of the Association, to determine the policies of the Association that have not been determined for it by the House of Delegates, to attend to all of the details of business and activity of the Association.

The Council has, to aid it, an Executive Committee which is composed of the president, the president-elect, the speaker of the House, the chairman of the Council, the chairman of the Auditing Committee, the chairman of the Committee on Public Relations, and the Secretary and the Editor. And, if you will, the Executive Committee is a small council which, because of its size, can meet more often than the Council can, and the Executive Committee, in a sense, attends to the business of the Council between the meetings of the Council. I am not going to take up your time today talking about the minutiae of detail that come before the Council for action and determination, but in the present day the Council is a very busy body. The first time that I went into the State Association as a delegate was in Oakland in 1926, and the next year I was elected vice-president of the Association, which carried with it a place on the Executive Committee and the Council. That was before the adoption of the present Constitution, which obliterated the vice-presidency.

And in those days it was the rule to have the meetings of the Council that are provided for in the Constitution, namely, the meetings during the annual session, the meeting in Los Angeles in the fall, and the meeting at San Francisco some time in January; and there was no thought at that time of having any more meetings of the Council. In the past eight or nine years, the activities in medicine and outside of medicine directed against medicine, have become so numerous that no year goes by without a number of extra meetings of the Council. At the present time we have facing us, in addition to our routine, intramural business, if you will, the problem Doctor Harris has just spoken to you about, namely, the legislative attempts to alter the practice of medicine which either have occurred or are still occurring or are contemplated. We have, in addition, a number of problems that deal with the practice of medicine that are very acute and that do not come under the heading of legislation. The Attorney-General's office in the state and the Insurance Commissioner have become more or less active in their pursuit of the welfare of medicine, I would like to say. They have a number of suits in the state in which they are attempting to clarify the law relating to the practice of medicine; what constitutes medicine and who is entitled to practice it. Naturally, the appeal is made to us for aid and advice and coöperation, and the job the Council has to do in order to further the solution of the problems that these men are seeking requires a considerable amount of thought and consideration on the part of the Council, and a considerable amount of work on the part of the general counsel of the Association who, fundamentally, has to deal with these questions.

We have at the present time confronting us the matter of hospitalization insurance under Assembly Bill 246, which is being very busily agitated in several counties in the state, not always with contemplated provisions that are satisfactory to the Council; and I believe this afternoon a number of members of the Council, with those who are on the Committee of Public Relations, must spend the latter part of the afternoon, and probably a considerable part of the evening, dealing with the representatives of the hospitals from the city and county of San Francisco who are endeavoring to establish a hospitalization plan here that contains provisions that we feel are somewhat subversive of the practice of medicine, as we would like to see it exist. We have the matter of health insurance to consider. At the present time, as you know, there are two interim committees, one from the Senate and one from the Assembly. They are working quietly among themselves, and they are shortly to begin public hearings again, I understand. The Council, if you remember, endeavored to find out the present attitude of its membership and the physicians of California in relation to the matter of health insurance, to have some guide as to its attitude in the matter in case anything should turn up in the matter of the public activities, at least, of the interim committees of the Senate and Assembly.

I can go on here for the next two hours, but I want, primarily representing the Council, to try to impress upon you the fact that the Council does not look upon itself as any great self-determining body. The nine district councilors are elected to represent their districts, and fundamentally they should be mouthpieces of opinion in their districts. The six councilors-at-large, nominally, should be able to look at the state as a whole, and use their judgments on that without listening to too much local opinion; and the officers of the Association, who compose the rest of the Council, naturally would be expected to exercise their judgments from the standpoint of the whole. The difficulty that we find is in obtaining an expression of opinion from the county societies and the individual members as to what they are thinking. There is more armchair criticism, I suppose, in the medical profession than there is in anything excepting the legal profession, and I suppose the lawyers and the physicians constitute probably the greatest bunch of individualists that can be accumulated anywhere in the world, although the lawyer is taught to disagree with a man without criticizing his motives, his honesty and everything else, which the doctors seem to find great difficulty in doing. The Council would think that the millenium had come if it were bombarded with expressions of opinion from the county societies and from individual members of the profession. What we find, of course, is that after straining our cortices trying to think out a solution to a problem, we are bombarded with criticism after the decision has been made under the necessity of making it. The other thing that the Council would consider the millenium would be to find that, when a decision was made, after the opinions had been fired into it, the profession, or at least the membership of the California Medical Association, stuck together on a decision. Doctor Harris can speak, I think, more feelingly than I can upon the difficulty that we have when a decision is made, even by our House of Delegates; the boys who are good organization men and who, whether they believe in it themselves up at Sacramento or line themselves up in a meeting of hospital representatives and California Medical Association representatives, with their shoulders together and their jaws set to scrap for the decision that was made by the Association; and then find, popping up all over the meeting, more or less prominent members of the Association who say, "Why, I don't believe this. I'm a member of the California Medical Association, and this doesn't represent the combined opinion of the doctors." And we shrink into ourselves a little bit and wonder how on earth we can do our job and how on earth we can impress upon the public at large, or the groups with whom we have to deal, that medicine has any concerted ideas about anything.

Now latterly there has been growing in the Association a consciousness of a necessity for this type of union, if you will, and in the last few years I think we have begun to make an impression. I think that at the last legislature there probably were not as many divergent medical opinions being voiced by as many doctors as there have been at previous legislatures, although there were enough divergences of opinion to produce a lot of rumbling around among the legislative halls that the doctors were not united on this and were not united on that and, therefore, it was not necessary to listen too intently to what their representatives were saying. So that, without going into a lot of detail on the work that the Council does, which would sound somewhat like preaching, and without asking you to be politicians or legislators, as Junius says, I should like to ask the secretaries to go back to their county societies as harbingers of faith and union, remembering that the Council will be perfectly delighted to receive at any time, from any of you, letters, communications, personal visits, expressing to us the feeling, as you get it in your own county societies, and your own personal opinions about problems which face medicine in the State of California and with which the Council has to deal. You should spread among your own membership something of the idea that medicine is faced from now on, I think, with a greater danger of change and assault from all sorts of interests, who want to break in upon the privileges and advantages of the practice of medicine, than it has ever been faced with before; and that the future of medicine in the State of California depends upon the united opinion and action of the medical profession in California, of which you secretaries represent a very vital part. I was secretary of the San Francisco County Medical Society for seven years. I know what being a secretary is, and I have a deep appreciation and sympathy with all of you, and I think that I express the feeling of the Council when I say that the secretaries of the county societies are really the backbone of any organization like the California Medical Association, and we, the Council, cannot get, in our opinion, too close a coöperation with the secretaries of the county medical societies. You are the men who do the work, and you are the men through whom, to us, can come the opinions and activities of the memberships of your various county medical societies. We hope that this annual meeting of the secretaries with the Council will be bigger and better every year—we intend to make it an annual affair—and you go back home and see if we cannot, together, develop even a closer type of organization than we have at present, which was said to be by one of the senators that Dr. Junius Harris had up here on the board, the "toughest organization today excepting the state employees and the teachers." Thank you. (Applause.)

Comments by Presiding Officer Warnshuis

Sometimes an officer of the court sneaks up to you when you are going to a theater, to a dinner or the club, and serves you with a document, demanding that you appear as a defendant in court in a suit started against you. It is very comforting and productive of a good night's rest, particularly productive of a good night's slumber, if you have a counsel who is an expert or a specialist along the lines of medical jurisprudence. The California Medical Association is fortunate in having such a light of the legal fraternity of California, if there are any lights in that professional group. (Laughter.) I have the pleasure of presenting to you Hartley F. Peart, our legal counsel:

REMARKS BY THE GENERAL COUNSEL, MR. HARTLEY F. PEART

Mr. Chairman, Ladies, and Gentlemen: The title of these remarks of mine, "Legal Services," presents at once the question as to what legal services can possibly be necessary for an association of physicians.

In my early days as attorney for the Association, back in the 'teens, we had very little serious legal work other than malpractice. We had a good deal of malpractice, which was then a function of the entire Association and every man was entitled to defense, particularly if he had no insurance. We had some cult questions; legislation, however, was not very serious. It was only with the beginning of the discussion of health insurance in 1918 that these problems which are before you today—and they are very serious problems—began to increase and legal work began to take on a very significant part of the Association's activities. The Council last year appointed a committee of its members to review and report on the work of the legal department for the five preceding years, and in getting the records together for them I was amazed myself to see the various types of law that have intruded themselves into your activities. I might mention just a few in these brief remarks.

In the first place, legislation. In the sessions of the legislature the Association occasionally sponsors bills. We have the State Medical Library Act and the Clinic Bill on the books, which were directly sponsored by the Association. Most of the work, of course, is of a defensive nature, and here again we are called upon to examine proposed legislation to give an opinion as to possible desirable amendments, to prepare the amendments and to generally counsel and advise the Legislative Committee as to compliance with the election laws. The election laws are somewhat numerous in this state. They are based upon constitutional provisions in part, and those constitutional provisions (such as the one defining lobbying) are extremely interesting, and sometimes compliance with all of these laws is rather an intricate affair. The situation is not altogether clear when a bill is presented as to just where it will lead, just what is involved in it and just what considerations should be given attention in determining the attitude of the Association.

Now, just as Doctor Kelly said, I should like to have you, ladies and gentlemen, think of the positions sometimes of the officers and the Legal Counsel of the Association when the House of Delegates acts on a matter, say a legislative matter, and directs the Council to do everything in its power either to defeat legislation or to pass it. There is only one thing for the Council, the officers, and the attorney for the Association to do, and that is to do exactly as instructed, or resign. Sometimes when we do that, as has been suggested here today, we are asked whether we really personally are in favor of such measures, or whether we are personally opposed to such measures. That, of course, to an attorney or to any other representative, is beside the point entirely. We are here to do our duty.

We have at the present time in the courts of California three very important legal cases. The first is that of Goodall against Brite, the Kern County Hospital case which is pending before the Fourth District Court of Appeal at San Bernardino. That case was tried under difficult conditions by Mr. Alfred Siemon, resulting in a decision, and it is the only decision on the subject in California, that the Supervisors were not warranted in hospitalizing anyone except an indigent, or a person designated by certain statutes, such as cases for quarantine and prisoners, etc. The Supervisors appealed from that decision to the Supreme Court, and the case was transferred to the District Court of Appeal for hearing and has been thoroughly briefed and we hope for a favorable decision.* That, of course, will only determine what the law is under the statutes as they exist today. As Doctor Harris very properly said, it is purely legislative matter, and legislative attacks, both to open the county hospitals to part-pay patients and to use the county hospitals for hospital insurance, at the cost of the taxpayers, can confidently be expected at the next session.

The next case that I want to mention is that of the Pacific Employers' Insurance Company against the Insurance Commissioner. This case was commenced by the Pacific Employers' Insurance Company of Los Angeles, a very high-class insurance company, to compel the Insurance Commissioner to approve certain policy forms which, on the face, appeared to be health and accident indemnity policies with the benefits payable in cash. By reason of the language of the application for the policy and waivers therein contained on the part of the insured, the policies were in fact contracts to furnish medical service by doctors. The Attorney-General, representing the Insurance Commissioner, requested our assistance and we notified the Dental Associations and the State Bar. Briefs for those associations were filed. The Superior Court decided the case against us. An appeal was taken to the District Court of Appeal and the matter was thoroughly briefed there, and in this last CALIFORNIA AND WESTERN MEDICINE† you will find the text of a very splendid decision by the District Court of Appeal, written by Justice Spence, and concurred in by Justices Norse and Sturdevant. Now in this decision, for the first time in California an upper court has definitely ruled that in the case of medicine, as it had previously ruled in the case of dentistry and in law, that corporations cannot practice the profession. Now they have one more recourse—they can petition the Supreme Court for a hearing, and that time will expire now in a very few days. I do not believe, however, that that decision will be reversed; I hope it will be maintained. It is a splendidly written decision and a great deal of credit goes to Mr. Kennedy, attorney for the Dental Associations, who wrote a very wonderful brief. We conferred as to the division of the brief, and it is of interest to know that some of the most important amendments directed to be prepared by the counsel of the California Medical Association to Senate Bill 471 are incorporated in this decision, showing that the legislature, as the court reasoned, refused to pass a bill which did not prevent corporate practice and adopted amendments preventing it.

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* Editor's Note.—The decision was affirmed by the Appellate Court. Text of the decision is printed in this issue (see page 189).

The third decision that I have in mind is the case of Doctor Chalmers-Francis and others in Los Angeles, against a hospital there and a nurse-anesthetist. This case was brought by these doctors as a committee of their particular specialty of the Los Angeles County Medical Association. The case was tried and lost, and at that juncture the doctors appealed to the Council for aid. The Council, thinking that it would be desirable to settle the question, and that the question was a very important one for not only this specialty but for several other specialties, directed us to also enter the case. We are just concluding our closing brief in that case, which will result then in a submission of the case at the first of next month. The other side filed a motion which was heard in Los Angeles in September, that the appeal should be dismissed because it had no merit. The Supreme Court made a very interesting statement there through the Chief Justice that, in their opinion, the appeal had merit, that the question was entirely novel and that they desired to have the matter fully briefed and to determine it on its merits. A decision in that case can probably be expected in the course of three or four months.

We have a good deal of legal work to do also in connection with internal affairs. At my office this morning I received a letter from Doctor Kress with a scientific paper enclosed, dealing with some fluorin poisoning cases in San Francisco. Now that looks rather far away for a lawyer to be having anything to say about it, but Doctor Kress is afraid of libel if names of business firms are mentioned. I shall not refer to this paper in detail, but to one that came up several years ago—they come up every now and then—where a doctor wrote a paper in which he cited a number of cases and, in the discussion of his paper, he said that all of these patients were improperly treated, and pointed out the treatment that he thought should have been used. The printing of the paper would, inevitably, have disclosed to anyone interested who the patients were and who was involved, and would have resulted in a number of malpractice actions. Also the question of libel as to other members of the Association was involved.

Another very interesting legal question has arisen several times, concerning the disciplinary proceedings which have been growing rather frequent of late. County societies undertaking to discipline their members are, of course, immediately stepping into the field of law. The law is rather settled, although it took us some time to unearth the various authorities that we needed. But the law steps into medicine here and the courts have so announced, and in general they make this statement, that the law is as anxious to have an antiseptic field, I think the wording was, for the severance of a member from his society as a surgeon is in undertaking to sever a human member. The following are essential: a fair hearing, delivery to the accused of a copy of the charges against him, notice of the time and place of hearing, giving him an opportunity to present his witnesses, seeing to it that the board or the committee that hears the charges is impartial.

The Council has appointed a committee, of which Doctor Roblee is chairman, on this matter of a disciplinary code. I might state that they are attempting to prepare a uniform code for the entire state, if that is possible, and for each county society. The Council will probably consider the first draft of that code tomorrow.

We have also another interesting question that came up the last two weeks, and that is whether or not the courts will protect the doctor as to opinion evidence.* A case arose here some years ago where it seemed as though the point would come squarely before the court. A doctor refused to give opinion evidence unless he was compensated, and at the direction of the Council we went into the case to try to get a ruling on that point. The California courts have never ruled on it directly. In this particular case, at the stage where we went into it, the District Court of Appeal had decided that a doctor was not entitled to compensation for expert testimony, that he could be called on a subpoena, given $2 and his mileage, produced in court, have any kind of a technical question submitted to him calling for his opinion, and that he would be compelled to give it for the $2 and the mileage. The question arose recently in Los Angeles and, I think, was reserved by stipulation, as I understand from Doctor Kress.

Now I might say a word about malpractice. You know the only interest that the Association has in that, at this time, is through its suborganization, the "Medical Society of the State of California." That has been functioning for a number of years, I think since 1923, for those members of the Association who desire to become members of that suborganization. The situation in reference to malpractice is very unsatisfactory at the present time. The companies have experienced tremendous expense disbursements as well as some bad losses. They state—and I think that perhaps there is a good deal in their statement—that they must have somewhat higher premiums. Whether the premiums should be as high as they claim probably cannot be determined until a good deal of work is done in that connection. The Council has appointed a committee, of which Doctor Reinle is chairman, to survey the matter, and I believe a great deal of work has been done in Los Angeles by a committee. But that is a very live question and, of course, full of legal points.

Generally speaking, if I may add just a few words here, I am very much impressed with the seriousness of the problems that confront the profession. They call for the best and most considered judgment that can be given to them and for united action. I remember years ago that John O'Connell, one of the great labor leaders of California, was invited to address the Association, and I remember his advice, that the thing to do, if you were in disagreement, was to get into a room, lock the door and throw the key away until you were united enough to break out of the door. You folks are the key men in the organization—there is not any question about it; and a harmonious and united association can certainly bring about a successful future for the Association and medicine in California. (Applause.)

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† See January, 1936, issue, page 36.

* Editor's Note.—See February, 1936, issue, page 136.

Comments by Presiding Officer Warnshuis

Recognizing that one of the responsibilities of organized medicine is to afford its members an opportunity to remain abreast of scientific problems, it is true that the average man who, five years after graduation, pursues no postgraduate study, falls somewhat behind the front ranks in scientific medicine. The men who, in ten years, pursue no postgraduate work, only the exceptional one among them is able, by his individual effort, to again regain his place in the front ranks of medicine. Recognizing that responsibility, then, the House of Delegates this year created a Committee on Postgraduate Extension Work.

It has been one of my observations that the man who attains the high office of president of the state organization, after his term is completed goes into the discard. We are attempting in California to circumvent such happenings. You all know that Doctor Toland has been president-elect and president of our Association. Rather than see him go into the discard, the Council and president of the Association appointed him chairman of our Committee on Postgraduate Study. Dr. C. G. Toland of Los Angeles:

REMARKS BY THE CHAIRMAN OF THE SPECIAL COMMITTEE ON POSTGRADUATE WORK, DR. CLARENCE G. TOLAND

Mr. Chairman, President Peers, and Secretaries of the Component County Societies: I hope you all appreciate the meaning of Doctor Kelly's remarks. To many of our members this meeting is more important than any held during the year, because the secretaries of the component county societies will return to their respective territories with information that is very important.

My subject given to me today is, "Graduate Medicine." I wish to express my pleasure at meeting again with so many of you. I remember many of you from my trips north last year when we were engaged in the battle against Initiatives 9 and 17. I am here today on another crusade. It is the eternal lot of the physician to be concerned with activity. Stagnation is impossible. The bars against charlatans are still firmly placed in the lull of the fighting. It would seem well to turn our attention to our own armamentarium that we may be able to meet the increasing number of lay accusations that the medical profession itself does not keep well trained. We are facing at present the indictment that medical discoveries are many, but that their availability to laymen is lacking. They point to a marked lag between discoveries and practical application. The problem largely resolves itself into one of continual education of the physician from the time he enters the medical school until he leaves practice; more definitely it concerns itself with providing adequate postgraduate instruction. It is a laudable commentary on the progress of medical education that we should be largely concerned with postgraduate education rather than undergraduate.

We tacitly assume, or rather know, that the present graduates of our medical schools are as well prepared to practice good medicine as medical graduates in any country in the world. With few exceptions our medical schools are of Class A quality. It is a far cry from the state of the medical schools of yesterday, when most of them were ill-equipped and the graduates so illy prepared that all who could traveled to Europe for postgraduate help before entering practice. Today our graduates take this work in our own country, and other countries send their graduates to us.

The weakness in the plan for continual education of the physician manifests itself upon graduation. The great need for instruction is in general medicine. The medical schools that offer postgraduate instruction concern themselves largely with specialists. This is not alone their fault, as the demand is largely for such courses; but it does emphasize the fact that in the small towns, where most of our general practitioners live, the opportunity for postgraduate training is lacking, and not until adequate aid in keeping abreast of medical discoveries is accessible to every physician can we be said to have met our responsibility in medical education. The responsibility for postgraduate medical education cannot be placed on the medical schools. They are located usually in large centers of population, and most general practitioners are automatically excluded. It becomes the obligation of the State Medical Association to afford the chance for study which can be enjoyed by every physician in the state. It is rather surprising how long the state medical associations have waited to attack this problem. All of us have been conscious of it. We all recall the blank days immediately following graduation, when we missed acutely the clinics and conferences of the medical school. In the past those who have been fortunate have been able to take time yearly to attend the large clinics. The majority of physicians, the forgotten men in medicine, have had to stay at home, relying entirely on journals and meetings for instruction.

It has been a great revelation to me to read the report of the Michigan State Medical Society in 1934 relative to postgraduate medical education and the needs of the postgraduate. In an exhaustive study they found the average general physician deficient in medical knowledge to the extent that only half were able to pass a comprehensive examination in general medicine. There apparently existed a fairly definite relationship between availability of facilities such as meetings, hospitals, journals, and postgraduate activities in general, and the ability of the physician is indicated in the examination. The reasons for the inability to take postgraduate work were many: 48 per cent were due to financial difficulties, 13 per cent due to lack of time, 27 per cent to lack of facilities, in 3 per cent the courses were too long, and miscellaneous causes 24 per cent. These objections must be met in framing any plans for postgraduate work. It is granted that facilities are inadequate, and they apparently are insufficient because they are not available to the average physician, who cannot spare either the time or the money to get to the courses. We must move the mountain of postgraduate instruction to the general practitioner if we are to satisfy the valid objections of the many men we must reach. The plan to be evolved, or that has been evolved, necessarily will need changes with the changing conditions. The main needs are those encountered and emphasized in the Michigan report, which are the following points:

1. The plan to be successful must reach every M. D.
2. The committee must investigate the field, learn the needs, financial condition, and courses most desired.
3. A centralized program must be developed which would coördinate and utilize all educational opportunities in the state, so that the State Medical Association, the State Health Department, universities, hospitals, and other organizations should coöperate in development and application of the programs of education.
4. No one plan can be adequate unless every physician in the state is reached. Many means may be available through extension plans, such as speaker bureaus, formal courses, packet libraries, conference, films, etc.
5. The plan must not interfere with daily work. (To my mind this is the most important.)
6. The plan must not impose great sacrifice of time or money.
7. The plan must afford opportunities for a graded advance in study.

The problem as outlined in Michigan has been of great help to us here in determining our method of organization. Doctor Warnshuis was an active member of the committee there, and his advice and experience have been invaluable in launching our program here. We feel that in the present set-up we have met the stipulations given above as well as can be done at the present time. You are all familiar with the plan because it is my understanding that every secretary has had a copy of the plan that our committee, consisting of Dr. John Ruddock, Doctor Gundrum of Sacramento, and myself, got together and wrote. We sent it in to the secretary, who corrected and added to it, and then sent a copy to every secretary. It is hoped that by coöperation between the councilors and the committee, to determine the needs of each section. Such courses as are indicated will then be approved, so that they may be available to the men in that district with as little sacrifice of time and money as possible. The secretary is the administrator and coördinator of the work. He will receive all applications for the courses. He will arrange the time of the courses and see that they are announced in CALIFORNIA AND WESTERN MEDICINE, and through himself to the men in the district involved. Many details will have to be worked out in the future, as indicated, but we feel that with the advent of this program a signal step forward in medical education in the state is being taken. May we all coöperate to the best of our ability to establish this postgraduate work as a definite recognition of the responsibility of the State Association to help our medical students not only to secure an education, but also, as practicing physicians, to keep their education. Thank you very much. (Applause.)

Comments by Presiding Officer Warnshuis

The time set for the luncheon is now at hand. Those of you who have come in since the meeting started, I wish you would come forward at the adjournment for recess and sign an attendance slip, and also file your expense voucher. Those of you who have filed expense vouchers, Mrs. Talbot will give you the check of the Association.

The meeting will stand in recess.

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AFTERNOON SESSION

Comments by Presiding Officer Warnshuis

We will now complete the program of this morning, and it is my pleasure to introduce to you Dr. C. A. Dukes of Oakland, chairman of the Committee on Public Relations:

REMARKS BY THE CHAIRMAN OF THE COMMITTEE ON PUBLIC RELATIONS, DR. CHARLES A. DUKES

Mr. Chairman, and President Peers: You know I am in about the same position that Wilton Lackey was, who was invited over from New York to speak to a meeting in New Jersey. He was promised to be first on the program and when he got there he was not. They introduced this speaker and that—all good speakers like we had this morning—and about four hours after he had arrived they called on him. The president said: "We will now have the address of Wilton Lackey." And he said, "It's the Lambs Club in New York." So you will now have my address. This morning it was over in Oakland, but now I have it here. (Holds up paper.) See, it is thicker than the one that Doctor Toland read. (Laughter.)

It was suggested that to clarify the position of the public relationship department in the medical society and its relationship to the county societies, it might be well to read the resolution that created this department in February, 1932:

> WHEREAS, The Council, upon the recommendation of the special committee appointed by it to study the possible forms of organization, created the Department of Public Relations, to consist of a director holding the degree of Doctor of Medicine, and the following committees of the California Medical Association: Cancer Commission, Committee on Public Policy and Legislation, Committee on Medical Education, Committee on Hospitals, Dispensaries and Clinics, and Committee on Health and Public Instruction; and
>
> WHEREAS, The chairmen of these component committees, the president, the president-elect, the secretary of the California Medical Association, constituted by the Council and Advisory Committee, to be known as the Committee on Public Relations, with the duties of formulating plans and suggestions for the guidance of the Council and the House of Delegates, and the furtherance of the work of the department, and of assisting the director in the correlation of the work of the various component committees in the department.

Also another resolution, introduced by Doctor Kress, as follows:

> **That the director of the Department of Public Relations be instructed to use his best efforts to establish in the component county medical societies of the California Medical Association, committees on public relations, as recommended to the Council by the Committee on Public Relations.**

This resolution identifies the county medical societies with the Department of Public Relations.

The scope of the work has developed since that time, and I will say parenthetically at this point that it is the desire of the Department of Public Relations to coöperate with the Public Relations Committee of each county society. I believe you are overlooking an opportunity if you are not formulating in each county a competent, hard-working committee on public relations that will take over these problems and be your "glad-hand" artists. It might be like the story that I heard when Mrs. Dukes and I were visiting the Grand Canyon. The story went that a motherly cow was grazing contentedly, while her male calf romped around upon the green, when he romped a little too far and went over the edge and down he dropped. At five thousand feet she looked over sorrowfully with tears in her eyes, and said, "A little bull goes a long ways." (Laughter and applause.)

I tell you now that the Public Relations Committee of each of your county societies should have "a little bull." You can attract a great many more flies with syrup than you can with glue. You should attract the public to the work of the medical men and give it to them in a manner that they will understand; and you can do that through the committee. Not only that, but you have a lot of relationships between your own members that should be correlated in some department.

Richard Crabtree was speaking out here a few years ago and was talking about his brother who died, an attorney. He said his brother was the most wonderful man that he had ever known. There were just two classes of people to him—the people he knew and the people he did not know. So if you get to know each other better, and have a relationship through this department, you will find that all doctors are good fellows. We are temperamental, we have peculiar ideas and all that, but you can bring us all together. A number of counties in the state have done that, and see how beautifully they are working. There are a number of others that are larger, more difficult, because of the varied interests, but they should be brought together. That is one of the duties of the Department of Public Relations. Bring your troubles to us and we will try to digest them and put them before the Council in a manner that they will accept. They will probably browbeat us a little, but it saves you a lot of grief. In the late contacts, the department, through Doctor Warnshuis and, before him, Doctor Dickie, made some that were excellent, but Doctor Warnshuis has followed up with a lot of new ones that are splendid. For instance, he has contacted the department heads of our State Government, has gotten their coöperation, has gotten their good will by various contacts that he made, through the Parent-Teachers' Association, through the California Chamber of Commerce, through the Y. M. C. A., through the press releases to more than 250 papers we have direct contact with, and through radio stations. In this manner we are trying to reach the public so that the misunderstandings between the public and medical work will be fewer. I think some of the things that are going on in our late journals today could be well taken up by your various societies. If you would write to the Department of Public Relations your disapproval of such articles as in the last "Cosmopolitan" on the wonders of the osteopath, by Rex Beach, we would have an authority by which I believe we could go to these journals and say, "Why are you publishing these things? They are harmful to the people and are against the best spirit of scientific medicine." Many of these propagandists are such largely because of the money rewards to them. That is all it is done for. Let us take a hand in it, but do it through our organized groups so that it will have a little weight back of it. Doctor Harris told you all about that this morning.

Now we have gotten a bibliography for libraries of medicine, public health, personal health, and preventive medicine, and we have a public information bureau through this department. You can ring up the Medical Society headquarters at any time and get information on any of these subjects. We are trying to get it over to the lay people that they can do this if there are any of these problems that they do not understand.

Public education health institutes, such as the one held in Oakland a few weeks ago, are desirable. At this one there was an attendance of about six thousand people in one and one-half days. Lectures were given by men whom we selected, the sort of lectures that people understand. An auditorium about the size of this room was used, and was crowded at every talk given. We had exhibits all around and demonstrations were given. We are going to give those all over the state at various places.

We have a speakers' bureau, to which you can send in at any time for any type of speaker, who will be furnished to you without advertising privileges. And public meetings—people like to hear about medicine; they eat it up if you give it to them in an attractive form. That is the reason Rex Beach gets by with these articles, and the "Liberty" magazine got by with its article on the cancer cure up in Canada. They love to read about it. We must get those contacts. Now, if the Councils of your various societies are too busy, why do you not put more members to work? Make your committee an active committee. It does not need to take up the time of your Council, but it can take up the time with this work, and you can give it out to them as the Council gives it out to us; we digest it and bring it back to them, and you will find it to your advantage.

An interesting thing, to me, has developed recently. I have received a half-dozen letters from chiefs of staffs from various hospitals of the state, from one end of the state to the other, asking what we are going to do about hospital insurance. These letters have come in various ways: some of them have been attacks on us for our dilatoriousness, others tell us we are not doing right by the radiologists or the pathologists or somebody else.

As a result of those letters, I have asked to meet the Public Relations Committee this afternoon at four o'clock, the chiefs of staffs of the various hospitals in the state, so that we can bring this problem directly in. They will know what the problem of the hospital is. They will tell us what the problem of the medical man is. It seems to me that the only thing that the Public Relations Department is anxious about at this time is to have the medical service, on any of these plans that are developing, properly delivered to the people. That is all we are interested in. And if we can get that, and we can get these relationships between the various factions settled, and I think we can by bringing these men together. They have no axes to grind; they want the best interests of the hospital, and we all have the best interests of the hospital at heart. So I think we will solve that problem for you and the hospital laboratories at the same time. Now this is a voluminous course that has been gotten out by your committee, and is a lot better reading than I can tell it to you. I assure you that we will welcome at any time any sort of correspondence that we can help you on. Thank you very much. (Applause.)

Comments by Presiding Officer Warnshuis

Now that the text of our afternoon's discussion and some questions have been presented to you, we come to what I feel is the really interesting and most valuable part of this conference, and that is the round-table discussion, wherein every secretary, from what he has heard this morning and what he has in mind as to the problems in his own district, has an opportunity now of asking questions which will be answered by those who are supposed to know and give advice. At the request of Doctor Kress, because of other engagements that he and one or two other members of the State Board of Health have later on this afternoon, we will put up as the first round-table question the qualifying certificate proposal, or the Basic Science Act. I am going to ask Doctor Kress to open the discussion on that.

REMARKS BY THE CHAIRMAN OF THE SPECIAL COMMITTEE ON A QUALIFYING CERTIFICATE (BASIC SCIENCE) LAW, DR. GEORGE H. KRESS

Mr. Chairman and Secretaries: The first point to which I would call your attention, in regard to a qualifying certificate or basic science act, is that regular or nonsectarian medicine—our group—does not need such a law as a means of raising its educational or training standards; because, for years, our group has demanded a four-year high school education, plus two to three years of liberal arts work and, in addition, four years of special training in medicine. And here in California our own four Class A medical schools demand also one year of internship before granting the M. D. degree.

The osteopathic group states that it exacts a high school education and one year of college work by way of preliminary training. The chiropractors, however, seem to have license to accept any kind of preliminary education, with little or no statutory standards as regards professional training.

Here in California we have used the term "qualifying certificate," in lieu of "basic science," because it better states the nature of the proposed law. None of us seem to know, or to be able to agree upon what are the basic sciences; but a "qualifying certificate" is a something which we all understand. For we have "qualified plumbers," "certified milk," and all know what a "qualified voter" and a "certified this" and "certified that" mean.

So, from the standpoint of appeal to the lay public, a "qualifying certificate" law is a much better approach, and that is why your special committee has given to it that name.

What we are after, in this Qualifying Certificate Act, has nothing at all to do with those of us who are practitioners of nonsectarian medicine, nothing to do with the osteopaths, and nothing to do with the chiropractors who are already licensed; because, in the eyes of the law, we have all been legally licensed as practitioners of the healing art, with rights much akin to those we call property rights, and these cannot be taken away except for cause.

The people have a right to have a qualifying certificate law, because such an act is a protection to the health and lives of citizens, demanding, as it does, before any person receives legal recognition to present himself to the public as a practitioner of the healing art, he shall first give evidence of possessing primary or fundamental education, sufficient to indicate that he is a safe person to be entrusted with the responsibilities of a calling so important to the public as that of a healing-art practitioner.

If the need of proper education and training is put in simple language to citizens when they are asked to vote for a Qualifying Certificate Initiative, the response should, and I believe, will be favorable for such a law.

Now in regard to this particular Qualifying Certificate or Basic Science Act which has gradually been evolved at the end of some ten years, what is it? First of all, such a law obtained through legislative enactment would be of no avail. Why? Because any succeeding legislature could amend and nullify it, as it doubtless would, under pressure. If we submitted a proposed qualifying certificate law to the legislature, it would probably be so amended, through cultist influences, that when it got out on the legislative floor it would probably not be wanted, even though the Senate and the Assembly were willing to pass the measure in its final form.

On the other hand, to draft an initiative law is no light responsibility because, once enacted, no amendments can be made thereto except by vote of the people. An initiative law must, therefore, be framed on broad and somewhat elastic lines.

To put an initiative across will cost twenty-five to thirty-five thousand dollars. It costs ten cents a name to get the validated signatures. This year, for an initiative to find a place on the November ballot, a total of 186,000 valid signatures must be secured. To play safe you must have 25,000 to 40,000 more signatures, because if you lacked ten signatures of the 186,000, the petition would be legally invalid and all money spent would be lost. Once on the ballot, I have no doubt (nor have I had for a long time) as to what the result would be. We will make this simple plea as to why we want it: that the State of California has no right to give a license to a practitioner of any form of healing-art practice unless that man or woman has been so decently and fundamentally educated that he or she will not jeopardize the health or lives of members of the families of California. That is a simple argument; it goes home to the minds and hearts of the people, and the citizens of California will respond to our appeal if the members of the medical profession will approach them in proper manner. Thus, if each of the five thousand members of the California Medical Association will contact one hundred of his patients and, through our postcard system, ask coöperation in the enactment of the Qualifying Certificate Law, we shall have contacted practically one-third of the entire voting population on a measure which would have a good chance of passage even though no such effort was made.

As already stated, a qualifying certificate or basic science law will not infringe on the rights of healing-art practitioners already licensed in California, but it will go far in making it difficult for cultist groups who espouse inadequate standards from securing legislative or other recognition through separate examining boards.

The basic elements in the proposed California Qualifying Certificate or Basic Science Law have been sufficiently dwelt upon in the official journal and do not need repetition at this time. Members who are interested and who wish more information or desire to make suggestions, are invited to write to the Association secretary, who acts also as the secretary of the Special Committee on a Qualifying Certificate Law.

Your attention has also been called, in CALIFORNIA AND WESTERN MEDICINE, to the reasons that warrant postponement in the submittal of the initiative from November, 1936, to November, 1938. The 1935 California legislature amended the "permanent" registration laws of the state, in such wise that new registrations are necessary in 1936; a fact thousands upon thousands of voters will not appreciate until the March presidential primary elections are at hand. This fact means that it would be difficult to secure 180,000 valid signatures and have them certified by county registrars and the Secretary of State at least 110 days before the November election. There would be too much danger of not securing the necessary names and so losing the thousands of dollars expended to obtain an incomplete list.

In the 1937 legislature it should be possible to give successful battle to any low-standard cultist group that may seek a separate examining board and other legal recognition; and in the succeeding year, in 1938, our Qualifying Certificate Initiative should have a place on the ballot and go on to passage.

Comments by Presiding Officer Warnshuis

California has been very fortunate in having a most efficient secretary of its Board of Medical Examiners. I have known Charley Pinkham for fifteen years, and his reputation extends beyond the boundaries of California. Doctor Pinkham will you not continue this discussion for five minutes?

REMARKS BY THE SECRETARY OF THE CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS, DR. CHARLES B. PINKHAM

Mr. Chairman and Members of the Association: I have been very much interested in the legislative and enforcement ends of the Medical Practice Act and other acts in this state for a good many years. As Doctor Kress has said, the chiropractic initiative gives us a great deal of trouble and, also, I presume, gives the chiropractic board considerable distress for the simple reason that, as George Kress says, it is a frozen law. They have power of approval or disapproval of chiropractic schools. Under our loose corporation laws—which have been amended and tightened as much as possible, but still there is a loophole—schools can come into being. Formerly they were easily incorporated by anyone who had a small sum of money. At the present time promoters purchase the charter of a defunct institution, change the articles of incorporation, and go ahead and teach anything they see fit. The chiropractic initiative provides that the chiropractor may practice what is taught in chiropractic schools. They thereupon proceeded to teach surgery, obstetrics, medicine and everything else, and after graduation many proceed with practically unlimited practice. We take cases before the average justices of the peace, charging the individual with violation of Section 17 of the Medical Practice Act, the attorney for the defendant presents the portion of the chiropractic initiative which says that they may practice chiropractic as taught in chiropractic schools, whereupon the justice of the peace dismisses the case regardless of the fact that the Supreme Court may have decided in other cases that that had nothing to do with this particular violation. Too many justices of the peace have said that they do not care what the law is, and have dismissed the case. Another thing that the chiropractic board cannot do, and which we miss very much, is publish a directory. There is no possible way of learning how many chiropractors are licensed in the State of California, who they are, and where they are, or what their qualifications may be unless you directly contact the board of chiropractic examiners, which we do every day and many times, to find out whether John Jones, or somebody else, is a licensed chiropractor in this state. One thing that they teach, too, which has become a thorn in our flesh, is the practice of obstetrics. They have universally practiced obstetrics throughout the state, and this has given us a great deal of trouble. There is a school in Los Angeles called the Chiropractic College of Physicians and Surgeons, whatever that may be. We have had cases where chiropractors have done spinal punctures. They are doing intravenous injections of every conceivable nature. We have attempted to get court decisions as to just how far they can go in the practice of chiropractic. A case in San Jose was remanded by the Appellate Court back to the Superior Court because it was held, I think, that an injunction did not lie, and then tried another angle which is now pending in the court in San Francisco, under *McGranahan* v. *Berger*.

Another thing that we have to contend with is, as Doctor Kress has said, the rising tide of the so-called naturopaths. There is what they term a United States Naturopathic Association, which has its existence mostly under the hats of the incorporators. They issue a very beautiful certificate which may be purchased for $5. Diplomas are easily purchased. We have an actual certificate, issued in the State of Arizona, to a man in Los Angeles who sent $10 in to the State of Arizona and obtained his naturopathic license. There were quite a number of those issued—in fact, a large number were issued anticipatory of the passage of the last naturopathic initiative which, if passed, would automatically have licensed all these chaps who bought these diplomas and state licenses!

I think the Medical Practice Act should be amended, requiring the holder of a drugless practitioner's certificate to follow his name with the words "Drugless Practitioner," or some designating title which would show to the public just what kind of a doctor he is. There is one man in California who is licensed as a drugless practitioner. He is also licensed as a chiropractor. He has offices in several cities. We have complaints from several parts of the state, wanting to know if there is not some way that we can stop this doctor from using the prefix "Doctor." If he were licensed under the chiropractic initiative only, we could; but inasmuch as he holds a drugless practitioner's certificate, he is entitled to use the prefix "Doctor" without any designation as to what kind of a doctor he is. I think it is very important that the organization get together with some kind of an amendment that might designate the drugless practitioner from the physician and surgeon. Of course the big idea is to educate the graduates of medical schools to cut out the prefix "Doctor" and use the suffix "M. D.," something I have been interested in for a great many years, and so educate the public to know that when they see "M. D.," that means that the man is a graduate of a medical school. However, the naturopaths are crawling in on that by using "N. D.," and writing the "N" in such a way that it looks like an "M"; and I have seen several reports to different organizations, lodges, etc., which has that "N" so shaded that it looks exactly like an "M." And yet, if you ever took them into court you could not do a thing with them. Another very sweet little evasion of the Chiropractic Act that I saw some weeks ago—in walking down Market Street you will all notice, on the Liberty Bank building, at about the second or third story, in letters about that high (measuring with hand) "Dr. Jacobsen." In letters about that high (again measuring with hand), which you would have to have a microscope to see, are the letters "D. C." He complies with the law. Nobody would ever notice the "D. C." from the street.

There have been one or two other amendments suggested to the Medical Practice Act for which I do not know that the time is now ripe. As Doctor Kress said, the osteopathic group were very wise in framing their initiative—they had some very fine legal advice—and they incorporated in their initiative the Medical Practice Act as it then existed or might hereafter be amended. So, as Doctor Kress says, every time we want to amend the Medical Practice Act we have to meet with the favor of the osteopathic profession. So far we have not had much difficulty, except in the instance Doctor Kress spoke of, where we wanted to add an interne year and we could not get the bill out of committee, but other than that we have not had any difficulty in our amendments. I thank you.

REMARKS BY THE CHAIRMAN OF THE COMMITTEE ON LEGISLATION, DR. JUNIUS B. HARRIS

As Doctor Kress so well pointed out, we see more and more of these drugless practitioners, these naturopaths, assaulting the citadel of medicine. Anyone who has served on the State Board of Medical Examiners knows how, in the old days, an applicant would try the California Board and fail, and then suddenly discover that the climate up in Nevada was so much better, or that he had a chronic cough or maybe sinus trouble, and he had to go down to Arizona and try the State Board; and there he would get by, and he would then apply to Charley Pinkham for a certificate on reciprocity, in due time. We have had that trouble, not only with some of the regulars, but we have had it right along with these drugless practitioners. As you well know, there is a provision in our law wherein a drugless man can obtain a license and practice here, but there are these other drugless men, these naturopaths, who have been going into Nevada and into Arizona, and trying there to get a license, and then trying to come into our state through their license. Unfortunately, this year there was passed in the Arizona legislature a law creating a new naturopathic board, wherein this board would examine all applicants for licensure under the naturopathic certificate, and any one who had practiced naturopathy in Arizona for five years, whether he was licensed or not, could obtain a license, and they can now obtain a license in Arizona. So, do you not see, how they are flocking down there by the score to get an Arizona license—it is better than nothing—and then they will try to come on into California on that license. Anyone who goes up there and says, "Well, I've been practicing nature medicine for five years or more" may be asked, "Were you licensed?" "Oh, no. I wasn't licensed. I never took that trouble." "Well, all right. You've been practicing that long, you can become a naturopathic physician." And also, this same law that was passed in Arizona permits this naturopath to use the term "Doctor," so you can see, as Doctor Kress so well pointed out, why we need basic science regulations as some sort of a check on these birds.

Doctor Warnshuis speaking: Have the secretaries any questions to ask on this subject?

Questions by County Secretaries

Dr. Yocum:

I want to ask this question in regard to the statement Doctor Kress has made: he says the chiropractic law is frozen. If the Qualifying Certificate is passed, will it have any effect on the future osteopaths and the future chiropractors?

Dr. Kress:

A Qualifying Certificate Law would not affect nonsectarian practitioners, or osteopaths, or chiropractors who are already licensed in California. But as regards persons applying for licenses in the future, no matter to what group they might belong, all alike would come under the jurisdiction of the Qualifying Certificate Law.

Dr. Yocum:

May I ask a second question? Do these Supreme Court or Appellate Court decisions give a definition of the scope of a chiropractor's right to practice obstetrics? And is it presupposed that a definition of a chiropractor will come out of the Supreme Court or the Appellate Court?

Dr. Kress:

Nobody knows what courts will ever produce in the way of a definition. As a matter of fact, they rarely produce any definitions or interpretations unless such are already incorporated in laws previously enacted.

Dr. Yocum:

Thanks, very much.

Dr. Warnshuis:

Are there any other questions?

Dr. Crabtree:

I should like to ask Dr. Kress if it is not true that the proposed Basic or Qualifying Certificate Act is not somewhat below the standards of the other so-called Basic Science laws in nine other states?

Dr. Kress:

In answer to Dr. Crabtree, I would state that if we are to risk the expenditure of $35,000 to bring about the enactment of a Basic Science law, we not only want to win, we *must* win. We cannot spend $35,000 and lose. The nine Basic Science laws of other states are not as basic as their name would imply. When it comes to healing-art licensure, California may be said to be in a class almost by itself, due in part to the many faddists who have come to the Golden State from the East and elsewhere. We deal here not with a theory, but with a fact. A Qualifying Certificate Law, to be successful in California, must be as thoroughly divorced from things medical as is possible. That is why subjects such as pathology and even hygiene have been omitted from the committee's draft. If the Qualifying Certificate examiners nominated to the Governor by the five California universities and colleges are men of undoubted integrity and scholastic ability, as we believe they will be, it does not matter much as to the subjects. The standard of proficiency, namely, attainments of the standard demanded at the end of the freshman year in liberal arts courses, will amply cover the educational qualifications at stake.

Comments by Presiding Officer Warnshuis

Now we will pass on to the next subject for discussion, and that is "Membership Campaign." I am going to ask Dr. Vincent Askey, secretary of the Los Angeles County Medical Association, and also Mr. Stanley Cochems, the executive secretary of that association, to open the discussion. Doctor Askey:

REMARKS BY THE SECRETARY OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION,
DR. VINCENT ASKEY

Doctor Warnshuis, Ladies, and Gentlemen: As a member of the Membership Committee of our Association, I am more keenly interested, I think, than some of you in the keeping up of our membership. However, you all should be interested in it; otherwise, as you know, any institution which is built upon the action of individuals, unless you keep recreating and recouping your losses, will eventually degenerate into nothing. Primarily, therefore, we have to keep up and increase our membership. The problem is how to do it. I think we all realize that if we will first decide what object we want to attain, and then lay plans and schemes to attain that object, we have a legitimate chance of succeeding. We fully realize that the counties of this state vary in their problems; Los Angeles being a large city, San Francisco being a large city, and the others, have problems and means of generating interest in membership which are not necessary, possibly not even desirable, in smaller counties.

However, in Los Angeles County we have instituted a definite plan by which we can obtain new members. I claim no originality in this, because a great deal of our plan was instituted by my predecessors in office, but we have made changes in it, and with the help of my good friend, Mr. Cochems, I feel that we have attained a reasonable amount of success. I am very fortunate in having, as the executive secretary of the association, a man who has had a great experience in meeting the public, been a newspaper man, and has been very close to medicine for years. He has been the man who has really helped put this over and who, I feel, can, more ably than I, express to you the way we have worked our plan in Los Angeles. And we are presenting that to you, not as a cure-all, not that it would be applicable perhaps to your county, but merely on the assumption that any plan which has worked, which is working, and which may work, may be of great value to you and thereby may be of value to our Association as a whole which, after all, is the thing we are after. Therefore, I am going to ask Mr. Stanley Cochems, executive secretary of our society in Los Angeles, to explain the working of our plan.

Doctor Warnshuis:

You probably have all heard Mr. Cochems over the radio, and he speaks in a sweet-sounding voice, so, Mr. Cochems, get close to the microphone.

REMARKS BY THE EXECUTIVE SECRETARY OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION,
MR. STANLEY COCHEMS

Mr. Chairman: I have so many things in mind to say regarding membership. The mere adding of members to a society is not a difficult task, it is not a very important task; it is adding the right type of members. When you are adding them you are given that tremendous opportunity of adding working members. And that has been the thought back of this campaign of ours, and we have had a difficult campaign because in Los Angeles we collect $100, aside from dues, from the member who lives in the city, and $50 from the member who lives in the county but is not in the city limits. We have had to do some selling. By the time we have sold a man to the point where he will spend $100, and he is spending it now, or $50, if he lives out in the county, he is pretty well sold to the value of membership. He is sold to the important idea that he is not joining merely for some personal advantage; he does not expect the County Medical Association to do anything for him as an individual unless in so doing that thing for him it is doing something for medicine. So that $100 so-called initiation fee—I believe it should be an initiation fee, the way I look at it now, although we have not admitted that—is a very valuable factor.

When we started our campaign for new members we realized that committees appointed to solicit their friends would do a certain amount of good. We also realized that without any campaign we would attract a number of new members. There is the man, for example, who needed hospital affiliations, and for a selfish reason he would join. He is no real addition to the association—to the county association or to the state association. He is joining for a selfish purpose. He is not the man who is going to work for you. The way to get members is to sell them, not just appeal to their loyalty. Show them why organization and association is necessary for their existence as professional men. Prove to them that without an association there could be no profession of medicine; that if the American Medical Association and the various state state associations and county associations dropped out of existence tomorrow, within a very few short months every doctor of medicine would be reduced to the status of a skilled artisan. Association is essential to a profession, because association has made the profession, created the profession, any profession. And in this work of creating new members we have sold association and, I think, with some very pronounced results. I have had personal contact with several hundred of the newer members who have been sold to membership in the last several years, and we have no criticism from those members. I have kept a rather careful record of the great number of telephone calls that go through our office. We have a member who joined voluntarily from somewhere out in the sticks and something happens. A certain individual came to this doctor and said, "You have a dog." The doctor admitted it. The visitor said, "I want to collect $2 for a dog license." The doctor said, "Who are you?" He said, "I represent the Humane Society." The doctor asked, "What do you do with the money? Do you fight vivisection with it?" He said, "We certainly do. And if we had more money we'd fight it a whole lot harder." The doctor said, "I will not pay my dog license." Then he called me and asked what the county medical association would do about that. He was a member who had not been sold on the essentials of association. We have them call about petty things, but not one of the some two hundred members who were solicited for membership and were definitely sold on membership have called about these little things, and they are the ones who, if I call upon them to talk before some small lay group, an emergency call, are perfectly willing to do something for the organization. They realize how necessary and how serious the situation before medicine is. I believe that in any membership campaign that is considered, the thought behind it all is that, when it is so easy to sell the prospective member, sell him. Then you won't have to keep on trying to sell him when he is a member. And again I thank Heaven that we have had this $100 pledge, because we have had to collect $100 from a goodly number of men. I think that in the last year and a half we have collected some $40,000. And in collecting that $100 pledge we have had the very great opportunity of reselling, or possibly selling for the first time, the old member on the value of membership. And the basis of any organization, of course, is its working membership.

Our program that led into paid solicitation for members started as a result of collecting these pledges. We could not collect them by mail. We felt that the money was there, it was ours, we offered a value for it to the members. So we engaged several solicitors on a commission basis, and in their travels around they were given lists of eligible nonmembers to contact for membership. The work gradually developed to the point where the solicitation of new members became the major part of their work. Before either of these two men were sent out they spent a number of days in the office. They were required to read a number of things, including the code of ethics, to read all the articles that have appeared in the various magazines we have on hand on the value of membership; were talked to by the hour on what medicine meant, the ethics of medicine, the ideals of medicine, before they went out to approach the candidate for membership.

We discovered in our work that many of the doctors who were not members and who should have been members, considered the association as they would a lodge of some kind, or an athletic club. They did not wish to apply, they thought it was an invitational affair. We sent out such invitations and we had quite a decent response. They were glad to be welcomed. But sometimes I think I would rather have, as a member, a man it took an hour and a half or three days to sell than the man who volunteered for membership. I thank you.

Comments by Presiding Officer Warnshuis

Are there any other questions on this subject of membership? A question has been sent up to the desk: Who are eligible for membership in the association? I would answer that as follows: The Constitution and By-laws of the California Medical Association and most of the county medical societies provide that a man who is eligible for membership must possess the following qualifications: he must be a graduate of a reputable school of medicine, Class A college; he must have been licensed to practice by the State Board of Medical Examiners; he must subscribe to the principles of ethics, to the constitution and by-laws of his county society, and then the county society is made the sole judge of the qualifications of its membership, and he must therefore pass the qualification requirements of his county society.

ROUND TABLE DISCUSSION

Question from the floor:

May I ask about that Class A? There are a number of older men who have become, since graduation, good practitioners who definitely did not graduate from Class A schools, and yet we welcomed them in.

Dr. Warnshuis:

Absolutely. Those men who in years past have graduated from schools that are schools not now classified as Class A, are eligible if they meet the other requirements. Are there any other questions on this question of membership? The Board of Medical Examiners reports something like 11,500 licensed physicians in California. We had as membership of the association on January 31, 1935, 5,402 members. It has been my estimate that the highest possible strength in membership that our association can attain is approximately 6,500. Now within the last month to each county secretary there has been sent a blank, asking for certain detailed information regarding their county society, their affairs and their accounting. One of the questions has called for the number of desirable, eligible men in your county who have not affiliated. It is purposed that, after these blanks come in, to correspond with the secretaries of each county medical society and ascertain the names of these desirable, eligible men, and then with joint coöperation with the county medical society and the headquarters we shall endeavor to sell, as Mr. Cochems has stated, membership in your county association. I do wish and I am sure that the Council desires every secretary to go back home, confer with his Board of Trustees, the officers of his county society, or his Board of Directors, or whatever name by which your governing body is designated, and go over the eligible, desirable members in your county in order that we may endeavor to secure their affiliations; because, as Doctor Pallette has said, you want eventually to establish the fact in California, make it known to the public, publish it to the public, that if a man is not affiliated with his county medical society there is a big question mark back of his name as to whether he is a competent, qualified physician whom the people can trust to be their medical adviser. Is there any other discussion on this question?

Dr. Yocum:

There are two or three points in the application for membership that have come to my attention, partly by yourself and partly by digging into it myself, not having been secretary of the society for any great length of time, which I think might be important. The state association by-laws and those of the county medical societies require a six months' residence in the county for a person who has not been a member of the California Medical Association, and in some instances where they have been members in other counties, they require a six months' residence in the county before they can transfer their membership to the other and the sending in of the application blanks made out by the applicant to the state secretary to get his approval even before the local society has acted upon it. Can you clarify this somewhat?

Dr. Kelly:

I stick my nose in this because I was a member of the committee that beat into shape the constitution and by-laws which provided that. The idea involved in the formulation of that provision in the constitution was this: that before a man was taken into membership in any county society, there should be time enough required so that the county society could determine whether that man was an agreeable member. Now the state constitution provides that a man may hold his membership in a county society from whose jurisdiction he has moved for a year after such moving. The original paragraph in the constitution provided that a man must live in a county for six months before his application could be received. In order to prevent a peculiar union of circumstances which would make it necessary for him to live in the county then for a year before he could be a member, because of certain provisions in certain county society by-laws, we changed the state constitution to make it say that he must be a resident in the county for six months before his application could be acted upon.

Question from the floor:

Is that true of all counties?

Dr. Kelly:

Yes.

Dr. Warnshuis:

This is the provision of the by-laws.

Comment from the floor:

You're wrong on the local men.

Dr. Kelly:

All right. Read it.

Dr. Warnshuis:

It says:

> A member who changes his residence from the county through whose component county society he holds membership in this Association, to another county in which there is a component county society, is eligible to membership in the component county society of his new residence on the presentation of a transfer card and satisfactory evidence that his dues have been paid in full in the component county society in which he holds membership; provided, however, that no evidence which would disqualify him for membership exists, he can immediately become a member.

Discussion from the floor:

No, no.

Question from the floor:

Why?

Dr. Kelly:

It says he is *eligible* to membership, and certain of the county society by-laws contain the provision that he must reside in the county for six months before he can be made a member; and for that reason we changed in the present constitution the provision which said that he must be a resident in the county six months before his application could be received—changed it to read that he must be a resident in the county for six months before his application could be acted upon. That is done not only for state society reasons, but for national reasons. In other words, there are certain members in the various county societies of the state, of whom right now the county societies of which they are members would like to be rid, and they cannot get rid of them. If they happen to move to another county twelve months would solve the problem, and that is the reason the provision was put there; and if a man comes from another state, certainly any county society in California has the right to be the sole judge as to whether it wishes to take him in or not. That was the situation confronting the committee that finally dealt with the constitution as it is adopted at the present time, and that was the reason those provisions were put in. This was not only for the sake of the state society constitution, but because of the fact that certain of the counties had provisions in their by-laws which would be very difficult to change, and if not changed might make it necessary for a man to reside in a county a year before he could be a member; which was somewhat of a hardship on the man even more than on the county society, for the reason that at that time certain of the malpractice insurers were insuring only members of the county medical society.

Dr. Ullmann:

That local provision of six months is a very wise proviso. A man who had practiced in New York state, being a member of his local county society, very satisfactorily, turned up in Santa Barbara as a house-wrecker. After a while he decided to quit and to practice medicine again. He had taken out his license by reciprocity when he first came out here. I talked with him while he was still in the house-wrecking business, and he told me that he was going to practice medicine again. I immediately assumed that he was fresh in the county and held him up for that time. While we were waiting, he came around to a number of us and said he understood ethics and all that, but knew how the game was played, and that if he referred a patient to any one of us he expected a percentage and vice versa, so we had no votes for him when he came up for voting. He immediately started out as an advertising specialist, and is now up here.

Dr. Shaw:

When California graduates, interning in California institutions for a year, make application to a society for membership, how soon are they entitled to have their petitions acted upon? In that case they have taken their State Board examination and are licensed physicians. Must they be six months in that particular community after they have become licensed practitioners, or may they apply immediately after they get their certificates?

Dr. Kelly:

I can answer that. The problem presents itself, I should say, most distinctly in San Francisco and Los Angeles counties. It has always been assumed there that a boy who has spent a year in the community as an interne, who gets his license, can apply for membership and be taken in on the basis that he has been in the community for six months. Now if a man goes to a new community as soon as he gets his license, I still think that six months' provision holds good. This is my own opinion of a by-law in the state society and some of the county societies, that it doesn't do much harm to any community, to any county society, to require that they know a man in a community for six months before he is eligible to be acted upon as a possible member of the county society. The county societies in California today are all burdened with members that they wish they didn't have. I don't know that this is 100 per cent, but I think that in the larger communities certainly every one of them can say they have members that they took in hastily and wish they did not have now. The six months' obligation is within reason—it is amenable to change any time that the House of Delegates wants to do it. It was put in after a great deal of thought. Where a young chap who has been associated with the staffs of hospitals and has been doing his interneship under pretty careful supervision of men, most of whom are members of the society, and who naturally has resided in the community for a year as a rule before he gets his license, applies for membership in San Francisco—I know at the time that I was secretary it was assumed that he had been resident in the community for six months. I still have a feeling, however, that in a county society in a community in which the man did not serve his interneship and to which he went after he got his license, that society would do well to wait six months, and watch the boy before it finally acted upon his application. His good faith in the matter would be proved by his applying for membership as soon as he got in the county, so that within the minimum time of six months his application could be acted upon. I claim no omniscience, but from considerable experience with sour members of county societies I think it is a safeguard in the by-laws which is really worth while.

Dr. Yocum:

May I ask a question? When a man has been in a society and he moves to another community and his membership is not desirable, something like the case that Doctor Ullmann presented (and some of you know our situation down there), if anything is done by the members of the San Luis Obispo County Society in passing information by one way or another, probably by word would be preferable—if this man, who once was a member of the society, does not become a member of the society of the other county to which he goes, by virtue of the activities of the members of the society which he left, are the members of the society which he left legally liable for prosecution?

Mr. Peart:

No.

Dr. Evans:

I ask of Doctor Kelly this question: Suppose the recent graduate comes back and locates at his home where he has maintained his residence all the time, claiming six months' residence there, and applies for membership immediately after his certificate is granted?

Dr. Kelly:

The by-law requires that he be resident six months immediately preceding the action on his application. There is not anyone who believes more firmly than I in membership in the organized medical profession. I moved to California in 1920 from the East, and the first thing I did was to apply for membership in the county society, and I would not have been appalled, hurt, insulted, or anything else, if they had said at that time, "You'll have to wait six months before you become a member." But my application would have been in, and I would have been on record as anxious to be one of my "fellow men" with a conscious relation to the profession of medicine and not merely to the welfare of one Kelly, and I think that is what happens in most of the county societies now. When a newcomer applies immediately, he can be told: "If you put your application in now, it can be acted upon the moment that the six months have elapsed." He is being treated by every member of the county society on the same basis, personally, as though he were a member, and when he is finally taken in he merely crowns his six months' association with the members by his actual membership in the society, which every one of the members wanted him to have from the time he got there—and it provides the safeguard. I do not know how you can amend by-laws or qualify them so that you can take care of all peculiar situations that may arise. I still have a feeling, somehow, that this six months' provision, before an application can be acted upon, is a bit of a safeguard for enthusiastic action by some members of the county society who may fall for a pleasing gentleman who comes to town and who really has streaks of mould and corruption in him.

Dr. Packard:

As I understand the situation, the individual who has a membership in the society and moves to another county, at the end of a year in the county in which he maintains residence he must affiliate with that society if that society will have him? (Yes, sir.) As a point of information, if that individual acquires the mould and corruption of any type, and continues to maintain his membership in the society of first origin, and then requests that membership be transferred; and the society in which the residence has been asquired refuses to accept him, what becomes of the status of the situation in so far as the membership is concerned?

Dr. Warnshuis:

Section X, Chapter 11, of the By-Laws: "If a member who so transfers his residence be not elected to membership in the society of the county to which he moves, he shall have the right to maintain his membership upon payment of dues in the society of the county of his former residence, if that component county society gives its sanction thereto." Any other questions?

Dr. Packard:

What is the procedure for those physicians who have dropped out of membership, for reinstatement?

Dr. Warnshuis:

According to the provision of your local by-laws, he either pays his back dues or, by the consent of the county society, makes an application as a new member.

Dr. Evans:

One more question. A man whose license has been revoked applies for membership in the county society, but is still on parole. Would you leave it to the county organization to see what it might best do with him, or wait until his period of parole has expired?

Dr. Warnshuis:

The county society, I would say, as to what action or attitude it wants to take in regard to that member, because, after all, it is the county society that is the sole judge of the qualifications and acceptability of any man.

Dr. Mentzer:

If the member of a society transfers to another, and is in good standing during the period of six months' waiting, is he deprived of membership in the California State Medical Association, County Medical Association, and the American Medical Association?

Dr. Warnshuis:

No, not within the state, Doctor, but without the state. I was deprived of membership for six months when I came to California, until I established my residency here in San Francisco. I kept my own in the state from which I came, yes, but I was deprived of my membership in the California Medical Association, but not in the American Medical Association. Any other questions on this subject?

In endeavoring to orient myself somewhat with the history of the California Medical Association, its policies and activities, I have read the minutes of the

In endeavoring to orient myself somewhat with the history of the California Medical Association, its policies and activities, I have read the minutes of the organization going back for a number of years. Through those minutes I found constantly recurring one name, going back, I think, to 1875. That individual apparently, from the records, has not only been a county secretary, but he has been a councilor, he has been a president, and he is back in the Council now. It is a pleasure to present to this group of county secretaries Dr. O. D. Hamlin of Oakland.

Dr. Hamlin:

I have already been asked the question, "How long is this going to take?" Well, I have asked that question several times of the attorney and the chairman of the Council when they started in to talk a lot. We have listened a great deal. It reminds me very much of the lady who went to church and found when she was in the middle of the service, and was not allowed to go out, that she had forgotten to turn off the gas at home. She became worried and did not know what to do about it, but finally got up and left the services and turned the gas off. So I think it is getting toward the end of the meeting, and I think we ought to turn off the gas.

This question that you have been debating about—the eligibility of members of the county societies—the attorney has often been asked, "How can a county society get rid of an undesirable member?" Well, it took the attorney a long time to answer that question, and he told us in several different ways and in legal terms and otherwise, but he did not come right down and tell us how; he referred to the by-laws and read several pages of the by-laws, but when he got through with it he still had not told us how to do it. Now, I think that we would all like to know just how this could be done, and I should like to hear from our counsel on that, because the question has been here and we have been going around it in several ways—What should the county society do, and how they should do it—that is, without getting into any trouble.

Dr. Warnshuis:

There is one more question on our round-table and that is a matter of legislation—legislation in regard to the policies of the Association and, incidentally, I should like to have the stenographers keep this off the record. I am going to ask Doctor Harris to open that phase of the discussion, "Our legislative elective or selective policy, and the rôle played by the county societies."

(Discussion by Dr. Harris followed.)

Dr. Warnshuis:

Now has any secretary any question regarding activity in his county or any problems of his county society? The hour is drawing almost to the time when we adjourn, and we do not want to adjourn without giving the secretaries an opportunity to ask any questions that they might like to ask.

Question from the floor:

I wonder if it would be possible for you to give us a list of the men who are likely to come out and be of special interest to the profession?

Dr. Warnshuis:

It is rather a task but, Dr. Harris, can you give a general list of officials that are going to be of importance to the profession?

Dr. Harris:

Well, of course, you are going to have your antivivisection bill again—you will have that either as a legislative enactment or you will have it up as an initiative. The Antivivisection Society of America had an old "gal" leave them $1,000,000 back East; she died and left them a cold million to carry on this wonderful fight. Well, of course, with a can like that they are going to the bat. There are plenty of boys who want to help her spend that dough, and they are going to hop in and get all excited about it. You know, as I told you down in Yosemite, the lobbyists and the proponents of antivivisection dropped their old custom of having the dear old ladies come in and try to prevail upon the legislators to pass this law, and they got themselves a couple of Hollywood blondes, and these blondes went out and wined and dined the boys, and they had a great time; but, of course, when the vote came, it is like one of the Los Angeles assemblymen told one of these girls, he said: "Well, you see, girls, it is just as I thought. The boys stayed with you till the vote." They turned the girls down. Now, whether they will bring the blondes up again, or how they will work it, I do not know, but there is plenty of money to be spent and there are plenty of people who will hop in and help them spend the money. I interviewed both these ladies in my official capacity, and I found out that they did not know a darn thing about a dog, but they were throwing themselves into their work.

Of course, in our other county hospital legislation, that is the most serious thing, I think. That affects all of us. Now the men in Los Angeles, it does not affect them so much. They have been through their battle and they have either won, lost or drawn with all the different contenders; but those of us who practice in the country, it is a big thing for us, and you know you go and work up a case and it is all set and you are ready to send it into the hospital, or what not, and then you hear over the barbed wire telephone that they have gone to the county hospital; that Supervisor So-an-So sent the ambulance and insisted that they go and, of course, now we have such a fine county hospital that they say it is better there than at any of the private hospitals, and you have lost your patient. And with this society and that one whooping it up, and the Parent-Teachers, too, and the Grange going for more altruism in county hospitals at the taxpayers' expense—that is our real fight. And there is where our tug will come in the Senate because they *will* listen to some of these interests, and we are going to have an awful time there.

Senate Bill 471—we will have that fight all over again. They have learned from their mistakes just what to do next time, and they will go out and try to practice medicine, as corporations practicing medicine or have insurance companies sell medical service, and they are a pretty well-financed group; the groups that are tied up with that are pretty well-heeled, and they can hire good advice and good talent, and they can spend a lot of money in putting over their points.

I do not know of any other thing aside from the Basic Science Law that is hot just now, but we will have all the naturopaths back again with their bills; every session, you know, two or three legislators introduce bills to create a board of naturopathy, and then we will have x-ray bills up again, and the chiropractors will try to take care of our industrial accident cases, compensation cases, and run wild through our hospitals. Then there is health insurance. Of course, the two Interim Committees have been spoken about here today. The two Interim Committees are working; there is one in the Senate and one in the Assembly. We do not know what sort of reports they will bring in on health insurance, or how the vote that was taken (this postal-card vote) will affect that.

Question from the floor:

Is it possible to put through that plan on motor accidents in cars?

Dr. Harris:

There has been proposed many times, and there is in New Jersey and in Nebraska—they have laws—wherein a doctor can put in a lien against any moneys that are rendered in a judgment in automobile accidents. Those of you who practice in San Bernardino, down that way and then up through the Redwood Highway, any place where there are great stretches of road and few towns, know how the abuse exists where they drag in all these wrecks and these people, and they bleed and vomit all over the place, and you fix them up and they say, "Bye, bye, boy," and they are gone and you never see them again and you never get a nickel for your work. They carry off all the dressings in the place. I know that we see it up our way all the time, and there is no way of recovering. We had introduced bills wherein we would at least get something out of the money that they recovered in judgments, but the attorneys say, "What do you doctors want? A gold house on a silver hill? We do not have any such thing." And they throw us out. We have not been able to put that one over. You know it is very very hard to get a law passed. It is easy to block a play, but it is hard to make a touchdown.

Question from the floor:

Do you think, Doctor, that we will ever be able to get the doctors' automobiles exempted from attachment?

Dr. Harris:

That comes up all the time, too. You know the horse and buggy is exempt from attachment, but your automobile is not. We are still in the horse and buggy days in the legislature.

I do not know of anything else that is on the fire, but that is enough.

Dr. Yocum:

That laboratory technician bill. That bill was so worded that it practically excluded any technician, beyond a certain date, from becoming affiliated with or members of the organization. Will that come up again?

Dr. Harris:

Well, now, this is a good time to bring up that point, Doctor. Here is where a lot of well meaning individuals come in with bills and put them in the legislature, and then they want our Association and our Association's Legislative Committee to sit on those eggs and hatch them out. Well, maybe they are eggs that are not so good—there is a little bit something the matter with them, but really, now, we have had a lot of laws put up there that say, "Well, sic 'em now—go get those over." And I will tell you that that is the trouble with that laboratory bill. We had a laboratory bill and it was turned down, and then this bill was written by doctors and, bless their hearts, they do not know how to write bills. There is a department in the State of California that is appointed just for that particular purpose, and this bill never saw that department until too late. How are you going to put over a constitutional bill unless you go at it in the right way? Let us have less of that; let us not have so many fellows hopping up, you know, and sticking bills in the hopper and saying, "Now you grind them out." You see? Because when you do grind them out they are not so good. With our best efforts we often turn out things that are not so good, and we have to have them amended the next time, and the Lord knows we mean well enough. That laboratory bill is a very good example of that. Your x-ray bill was another one. The x-ray bill died a different death, but at the same time I doubt if it would go. I think we should utilize our central agency here in this Association to review our bills. Of course, anybody that has anything to propose, let us have it; let us see it. We want to better things—all of us are for that—but first let us see it, and then let us put it up to the boys and say, "Will this go? Is this constitutional?" Might sound fine to us, but the legal minds will say "No." The Legislative Council Bureau is just what it says. And they will say "No. It is not constitutional." Then why try to put it across just to have it knocked down later?

Dr. Green:

I have a couple of letters that my members in Salinas County asked me to read which have something to do with the trend of socialized medicine. This is a brand new one, and just came to the attention of the secretary last night and created a great deal of excitement among the physicians in Vallejo. This letter is written from the National Federation of Federal Employees, local No. 76, to one of the doctors in Vallejo:

> The National Federation of Federal Employees is the chief organization representing all the employees of the Federal Government. (That covers a lot of men, and it covers a lot of communities.) Local No. 76, the Vallejo unit of this organization, is forming a coöperative Medical Service Association. The object of this association is to provide complete, ordinary medical service to its members at a fixed monthly charge. By "ordinary medical service" is meant the service rendered by general practitioners. The possible membership is over 3,000 in Vallejo, but as membership is to be voluntary, it is not possible to estimate the number who will avail themselves of this benefit. The number of members will, undoubtedly, depend upon the monthly fee and the services rendered. We are, therefore, contacting in this manner the doctors in this locality in order to determine what services can be supplied at a reasonable cost to groups of 50, 100, 150, etc. Our committee will be pleased to call on you at your invitation to discuss this matter. They are available Mondays to Fridays after 4:45 p. m. and at any time on Saturdays and Sundays. We look forward with pleasure to meeting with you soon.

That is the new live issue for our community, and for all of those where there are government navy yards or other government activities. It is hard to say how far this will go. The other letter is a very interesting one and has to do with cities or communities in which general mills operate. We have a plant in Vallejo called the Sperry Flour Mill, which employs about 580 men, and this letter was sent to all of their examining surgeons. Now, you understand that general mills, that is, in communities like Vallejo, do not employ full-time medical men. They employ men in private practice who take this work as part of their job, and for this examination which I want to read they pay $2. No doubt others have received this letter, which is very interesting:

> General Mills Executive Examinations.
>
> Dear Doctor: All the executives and key-men and key-women of General Mills and its associate companies are required to have an annual health examination. This examination is to be very thorough—the patient entirely stripped. Rectal examination is required on all executives. Complete blood count with differential; urinalysis; and at the time of the first examination a blood Wassermann or Kahn should be included. If indicated, blood chemistry and an electrocardiogram should be done. In the family and past history, particular attention should be given to cardiovascular, renal disease and allergy. [Get the allergy. That's very important in flour mills.] We would like to have your opinion as to the person's general condition. When an executive is found to have any disease, advise him to see his physician. Later, inquire from the executive the progress made. Should the treatment not be proper, consult the doctor and see that the necessary treatment is instituted. It will be satisfactory if any employee comes to you as a private patient. Do not solicit business.
>
> Enclosed is a copy of the medical blank to be used for the examination, together with the classification of disease and rating. There is also enclosed a list of your duties as examining physician. Blanks and additional information may be secured from the branch office in your city or from me direct.
>
> The original of the medical examination report should be sent within ten days to Robert I. Riser, 1931 Medical Arts Building, Minneapolis, Minnesota.

I just wonder how many of you men will make that examination.

Dr. Warnshuis:

Doctor, if you will give me those two communications, I will refer them to the Committee on Public Relations, and we will communicate directly with these individuals.

Are there any other questions?

I do not think the meeting should adjourn unless we give a moment to a man whom I do not think many of you know, but who has rendered a splendid service to the profession of the state, who has the profession's interest at heart, and who has always been agreeable to lend his support to the ideals of medicine, former member of the Council—none other than Dr. W. B. Coffey.

Dr. Coffey:

I thank you, Mr. Chairman, for giving me recognition. That is all. I came here to be a listener. Thank you.

Dr. Warnshuis:

Are there any other questions?

Dr. Peers, do you want to pronounce the benediction?

Dr. Peers:

I am not going to attempt to pronounce any benediction, but I just want to thank you again for the wonderful turnout that we have had here today. They all know about Coronado and they are all coming down there, and I suppose they have all got their reservations, but do not forget that we are going to have another meeting of this type at Coronado. You will all get notice that on a certain noon there will be a meeting similar to this—the secretaries' or officers'—if you wish, officers' conference—and we hope you will all be there. Now, last year at Yosemite, as I told you while I have been going around the country, when we had that meeting there were thirty-five persons at the secretaries' luncheon, and eighteen of them belonged to the Council, and only seventeen were from the rest of the state, and that is not proper.

Now, I hope to see all of you, and those who could not be here today I hope to see them there. We are going to have a bang-up meeting. As you know, this has been a peach of a meeting, and I know we will all go back better able to instruct the boys at home. Thank you very much.

Dr. Warnshuis:

Immediately after the adjournment of this meeting, the Committee on Public Relations will meet in Room 214, on this floor. Every one of the secretaries is cordially invited to attend that meeting, at which the committee will have a conference with representatives of the various hospital staffs—that is, medical staffs of various hospitals. Is there anything else that any secretary wishes to present at this conference?

Question from the floor:

There is one thing I think we could do well, and that is to make a record of the assemblymen from all over the state. Why do not the different fellows check up on them and see what color they are?

Dr. Warnshuis:

Anything else? Again I want to thank you for the interest that you have shown in coming here, and again assure you that the central office is always at your service. We trust that you will command us at any time that we can be helpful to you, the key men of the Association, in discharging the responsibilities of your office.

Doctor Toland wishes me to remind the county secretaries to confer with their councilors and arrange for the postgraduate conferences in your district and then write in for the date.

There is no further business, and the conference stands adjourned.

COMPONENT COUNTY MEDICAL SOCIETIES

CONTRA COSTA COUNTY

As usual, the December (1935) meeting of the Contra Costa County Medical Society was devoted to a Christmas party. On December 14, members of the Society, their ladies and friends, fifty-one all told, enjoyed an informal dinner and evening of dancing at the Berkeley Country Club. Dr. L. H. Fraser was the genial master of ceremonies.

After all guests had been introduced to the assembled group, Doctor Fraser introduced the officers elected for the year 1936: President, Harry G. Ford; vice-president, Clara H. Spalding; secretary, Thomas J. Dozier; censor, C. R. Blake, for three years. Censors remaining on board: William A. Powell, for two years; Fred P. Nevius, for one year. Delegate, S. N. Weil. Alternate, William S. Lucas.

* * *

The Contra Costa County Medical Society held its first meeting of the year at the Hotel Carquinez, Richmond, on Tuesday evening, January 14.

The meeting was called to order at 8:30 o'clock by President Harry G. Ford, who introduced the guest speaker of the evening, Dr. Harold G. Trimble of Oakland.

Doctor Trimble spoke on *Collapse Therapy in Tuberculosis,* illustrating his talk with example cases and numerous original x-ray films. Following this, Mr. Frost and Mr. Up, representatives of Eli Lilly and Company, displayed a moving-picture film, *Collapse of the Lung,* illustrating methods of performing pneumothorax and thoracoplasty.

President Ford announced the appointment of the following committees:

Public Relations Committee—M. L. Fernandez (chairman), E. W. Merrithew, and U. S. Abbott.

Membership Committee—L. Abbott Hedges, L. H. Fraser, S. N. Weil, Tim D. Leon, M. L. Stauffer, and C. L. Kerns.

Publicity Committee—Clara Spalding.

Advisory Committee to Woman's Auxiliary — Kaho Daily (chairman) and J. M. McCullough.

History and Obituary Committee—J. B. Spalding.

A Parent-Teachers' Association lecture on "Physical Education in the Public Schools," by W. H. Orion, chief of the physical education department of the State of California, was announced as being held on Friday evening, January 31, at the Lincoln Auditorium.

Invitation was extended to all Contra Costa County physicians, and especially those in the East Bay region, to attend the first meeting of the recently organized staff of the Richmond Cottage Hospital, to be held on the evening of January 29 in the hospital lounge.

Dr. Clara Spalding was appointed to represent the Society at the Conference of County Society Secretaries to be held in San Francisco on January 18.

By unanimous vote Dr. Allen Morrow of Richmond was admitted to membership in the Society.

Dr. C. L. Abbott, county coroner, discussed informally the organization and operation of the coroner's office in this county, and solicited coöperation and suggestions for improvement from the Society. Doctor Ford entertained a motion, which was duly made and carried, that a committee be appointed to confer with Doctor Abbott, study the situation, and make recommendations to the Society. Dr. C. R. Blake was appointed chairman and Doctors L. H. Fraser and M. L. Stauffer, members of this committee.

President Ford announced that he planned to appoint one member to prepare an original paper and plan the scientific program for each meeting. Doctor Weil was appointed to do this for the next meeting, to be held at the Hotel Carquinez, Richmond, February 11.

Dr. W. A. Powell remarked on the recent passing of Mr. Thomas B. Swift, his splendid personal attributes, and the large contribution he has made toward the betterment of Contra Costa County, with particular reference to Mr. Swift's interest in and contribution to public health work. Upon motion by Doctor Powell, it was voted to send a letter to Mrs. Swift expressing the sympathy of the Society in the loss of Mr. Swift.

The meeting adjourned at 10:40 o'clock and refreshments were served, after which Dr. M. L. Stauffer showed moving pictures, courtesy Davis and Geck, on the subjects *Low Forceps Delivery* and *Traumatic Surgery of the Extremities.*

* * *

The regular monthly meeting of the Contra Costa County Medical Society was held on Tuesday evening, February 11, at the nurses' home of the County Hospital, in Martinez. In the absence of Doctor Ford, Doctor Weil presided over the meeting.

The application of Dr. George C. Kelso of Pittsburg was presented, and Doctor Kelso was unanimously elected to membership in the Society.

Doctor Weil gave a short outline of the tannic acid method of treating burns, showing a group of illustrative lantern slides, followed by discussion from the floor.

Doctor Weil introduced Dr. A. A. Alexander of Oakland, who addressed the Society on *Lead Poisoning.* Dr. D. C. Wise of Pittsburg submitted the findings in a study of industrial workers recently made in Pittsburg, with respect to lead absorption and lead intoxication. Doctor Alexander's paper was discussed by Doctors Wise, Weil, and Neufeld.

The next meeting was announced for March 10 at the Hotel Carquinez, Richmond, with Doctor Neufeld as chairman.

THOMAS J. DOZIER, *Secretary.*

HUMBOLDT COUNTY

The Humboldt County Medical Society held its regular meeting on the evening of February 20 at the Humboldt Golf Club, with President J. C. Woolford presiding.

This meeting was a joint one with the Dental Society. There were forty-one members present. Visitors representing the California Public Health League were: Doctors Fred Rodenbaugh and Ernest Sloman, and Mr. Ben Read, their executive secretary.

Our members were very much enthused over the reports of activities of the League by these visitors; so much so, that before the evening was over we found that a local chapter of the Public Health League, with thirty-eight members, had been formed, with Dr. Charles Falk, Sr., as president, and Dr. Vernon Hunt as secretary.

During the evening we enjoyed a turkey dinner at the clubhouse.

President Woolford announced that our next meeting would be on March 5 at St. Joseph's Hospital.

LAWRENCE A. WING, *Secretary.*

MONTEREY COUNTY

The regular meeting of the Monterey County Medical Society was held on January 9 at the Forrest Hill Hotel, Pacific Grove, at which fifteen members were present.

After voicing his appreciation to the members for their support, President Davlin installed Dr. John Merrill of Monterey as president for 1936. Doctor Merrill then outlined plans for the year. Other officers installed were: Dr. Wiley Reeves of Salinas, vice-president; Dr. E. F. Kehr of Carmel, secretary-treasurer; and Dr. Mast Wolfson, delegate.

After routine business, Dr. E. F. Kehr presented a paper on *Hypoglycemia and Hyperinsulinism,* followed by discussions of the subject by Doctors Wolfson, Davlin, and Farr.

E. F. KEHR, *Secretary.*

SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was called to order by the president, Dr. Frank A. MacDonald, on the evening of January 21 in the Auditorium at Twenty-ninth and L streets, Sacramento. Forty-five members were present.

The speaker of the evening, Dr. William G. Donald, physician, University of California, was introduced by the president.

Doctor Donald gave a very interesting history of the student health service from its inception to the present time, and classified sports according to the hazards presented, in which football headed the list, followed by horse polo and wrestling. He stressed the point that injuries most often occur when the players are undertrained or fatigued. The most frequent type of injury sustained in football occurs to the knees, shoulder girdle, and ankles, which make up 52 per cent of all injuries in this sport. Injuries sustained in track and boxing, which require close body contact, occur less often than the other three sports mentioned. Close coöperation between the coaches and medical staff contributed to safeguard the players engaged in the various sports and prevented the occurrence of unnecessary injuries. In closing, Doctor Donald made a plea for tolerance on the part of the spectators at athletic contests on behalf of the young men who are doing their best and who should not be severely criticized for errors committed in the heat of combat.

Doctor Donald's paper was most interesting and elicited a general discussion on the part of the membership.

Two new applications for membership were read for the first time.

President Frank A. MacDonald then announced his committees for the current year.

A resolution was read extolling the efficient manner in which Dr. Frank Warne Lee had conducted the office of secretary-treasurer for the past six years.

NORRIS R. JONES, *Secretary.*

SAN BERNARDINO COUNTY

The meeting of the San Bernardino County Medical Society was held at the San Bernardino County Charity Hospital on Tuesday, February 4, at 8 p. m., and was called to order by the president at 8:10 p. m. About fifty members and guests were present.

The application of Dr. Erving L. Rogers of Loma Linda for transfer of membership from Orange County Medical Society to the San Bernardino County Medical Society was accepted on motion of Dr. C. G. Hilliard.

William A. Byrne, assistant special agent for the State Board of Medical Examiners, presented details of the E. B. Hartman (chiropractor) case now in the courts of San Bernardino County. He called attention to the decision of the court convicting Hartman for practicing medicine. The court ruled that chiropractic should embrace those principles and teachings taught in schools of chiropractic at the time of the legislation affecting this method of healing in 1922. Mr. Byrne congratulated the District Attorney, Stanley Mussell, and his assistant, Mr. John P. Knauf, in accomplishing something in this county which had not been accomplished elsewhere in the State.

Doctor Emmons moved that the Society send an expression of commendation to Stanley Mussel and John P. Knauf for the satisfactory prosecution of this case. Seconded and carried. The president instructed the secretary to write such a letter.

Doctor Emmons reported for the Committee on Declaration of Policy in regard to the medical care of the county indigent. He stated that money was being budgeted to send out a certain number of obstetrical cases and to care for certain clinic patients in the physician's office at a fee of fifty cents. He suggested that physicians of the Society would be contacted to determine if they wished to be on the panel to take these cases. It was moved, seconded and carried, that the Society approve the action of this committee.

Doctor Clough reported that the Postgraduate Committees of Riverside, Orange, and San Bernardino counties had met and voted to have only one postgraduate clinic this year. This will be held in San Bernardino at the Elks Club in April, and will take the place of the respective county meetings for that month. No action taken.

Doctor Abbott presented an outline of a plan for a county-wide syphilis clinic. He suggested that the patients be sent out from the County Hospital Clinic to be given treatment in the offices of private physicians at rates that the patients can afford to pay. Drugs will be supplied by the county, and central records will be kept at the San Bernardino County Hospital Clinic.

The program of the evening was then presented:

Case Report of Erythroblastosis Fetalis by C. A. Wylie.

Some Interesting Urologic Cases by I. L. Finkelberg. Discussion by Dr. Chauncey Baird.

Urologic Complications of Pregnancy by Walter Pritchard. Discussion by H. G. Hill, J. S. Hayhurst, and T. I. Zirkle.

A. E. Varden, *Secretary.* (By J. S.)

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SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held in the Medico-Dental clubroom, Stockton, February 6, at 8:15 p. m., Past President C. A. Broaddus presiding.

This meeting was preceded by the customary supper meeting at the Hotel Wolf, at which twenty-five members were present. Dr. George Sanderson gave a very interesting talk on his trip to Iowa and of his work there, and also a report on the American Orthopedic convention at St. Louis.

After the opening of the regular meeting and the reading of the Minutes of the preceding meeting, Past President C. A. Broaddus installed President T. C. O'Connor.

An innovation is being tried by Doctor O'Connor in which he places the scientific paper before the routine business so that if the man presenting the paper wishes to return to his home at the conclusion he can thereby save an hour to an hour and a half of time.

Speakers at the meeting were Doctor Covington of the Rockefeller Foundation. He spoke briefly on the status of the *Research Influenza.* State Senator Crittendon spoke briefly on the local sewer ballot election to be held in the near future. Doctor Broaddus moved that the Society go on record recommending the passage of these bonds. This was seconded by Doctor McGurk, and the motion carried. Emmet Rixford, clinical professor of surgery at Stanford University, presented the main paper of the evening on *Industrial Accidents.* He presented several very novel cases. The paper was enjoyed, and discussed freely by Doctors Dameron, Powell, and Hull. Doctor Hull moved that a vote of thanks be given Doctor Rixford for this very interesting paper. This was seconded from the floor, and carried.

The letter of Doctor Wierich requesting that he be placed on the retired membership list was then read. Dr. W. W. Fitzgerald moved that this be granted. This was seconded by Doctor Hill, and the motion carried.

The Committee on Admissions reported favorably on Doctors Barron, Don Dulk, Hooker, Peterson, and Green. There being no objections from the floor they were declared elected, on payment of their dues for the year 1936. The petitions for membership of Doctors Kanagawa and Hagerty were read. These petitions were referred to the Admissions Committee.

Doctor Langdon moved that the Society appoint a committee of five to act as an advisory committee to the Woman's Auxiliary to the San Joaquin County Medical Society. Doctor Sanderson seconded the motion, and it was carried.

Doctor Rohrbacher told of the recent meeting of the county society secretaries held in San Francisco.

President O'Connor appointed committees for the year 1936.

There being no further business to come before the Society the meeting was adjourned at 10:45 o'clock and refreshments were served.

G. H. Rohrbacher, *Secretary.*

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SAN MATEO COUNTY

The Hospital Service Insurance Committee of the San Mateo County Medical Society met on February 6.

The committee feels that a great risk would be involved in the promotion by any organized group in San Mateo County, acting as a unit, of a hospital service insurance plan at the present time.

The committee recommends that the action of neighboring county societies be observed and that the San Mateo County Medical Society be kept informed on the work that is being done on this problem. It was unanimously agreed that the committee would not approve or recommend a plan which included under hospital service the practice of medicine.

By a unanimous vote the committee expressed its confidence in the principles set forth by the Council of the California Medical Association in connection with this problem and further expressed its desire and willingness to coöperate with the California Medical Association on the question of hospital service insurance.

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SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held in the Bissell Auditorium on Monday evening, February 10.

President Gray introduced the speaker of the evening, Dr. Charles F. McCusky of Los Angeles, who presented an extremely interesting and instructive talk upon *Anesthesia and Anesthetics.* Discussion by Doctors Findley, Pierce, Wilcox, Wills, and Gray.

It was moved, seconded and carried, that the following actions of the Council of the Society be confirmed:

1. That the place of meeting of the district postgraduate course be left to the decision of the district councilor.
2. That this Society is favorable to the principle of hospital insurance administered by the hospitals themselves, with advice from the county society as to technical procedures, all being subject to the approval of the State Association.

Moved, seconded and carried, that the president appoint a committee to act in an advisory capacity to the hospitals.

The Public Relations Committee, through Doctor Henderson, offered the attached recommendations.

After discussion, the recommendations regarding the Samaritan treatment were ordered tabled, with the exception of the following which was unanimously adopted: That the president of the Society appoint a committee to investigate the feasibility of some plan by which alcoholics in Santa Barbara County may be effectively treated in approved hospitals.

The recommendations that all milk within the city should be pasteurized, except certified, was amended to read as follows:

The Santa Barbara County Medical Society endorses the proposed action of the City Health Department in requesting in the near future an amendment to the city milk ordinance, requiring that all milk sold within the city shall be pasteurized.

Doctor Hare, reporting for the Publicity Committee, offered the attached recommendations as a guide for the actions of that committee. Unanimously adopted.

A notification was received from the State Association that this society was entitled to a third delegate and alternate. It was unanimously carried that the president appoint a delegate and alternate, to serve until the next annual election.

Appointees—Richard Evans, delegate; P. A. Gray and W. H. Eaton, alternates.

W. H. Eaton, *Secretary.*

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SOLANO COUNTY

A dinner meeting of the Solano County Medical Society was held Tuesday evening, February 11, at the Casa de Vallejo Hotel in Vallejo.

Doctor Chappell, president of the Society, had charge of a short business meeting before the program. It was decided to appoint committees to consider the postgraduate study course offered through the California Medical Association, to determine whether or not the county society could take advantage of the course. A committee was also appointed to gather information relative to a request by local government employees for doctors to serve on a panel for contract services to government employees. Other matters of importance to the Society, such as the General Mills Fee Schedule, and information concerning care of children hurt at school, were laid over for the next meeting of the Society, which will be a business meeting.

After a brief of the County Society Secretaries' meeting held at the Sir Francis Drake Hotel on January 18, the secretary, Dr. John W. Green, introduced the guest speaker, Dr. Howard Morrow, clinical professor of dermatology of the University of California.

Doctor Morrow gave the Society a very interesting paper on *Diseases of the Skin Met Commonly in Practice.* There were many interesting lantern slides shown as Doctor Morrow spoke at length on diagnosis and treatment of familiar diseases, such as scabies, warts, smallpox, syphilis, tuberculosis, pityriasis, erythema, bromin rashes, pemphigus neonatorum, leprosy; the parasitic skin diseases, such as ringworm of nails, body and face, cancer of the lip and cancer of the ear. He also showed the incidence of poliomyelitis in California in 1934 and 1935, as well as the incidence of rabies in dogs in California in 1934 and 1935, and finished with a motion picture of an actual case of rabies in the human. This picture was loaned him by Dr. Karl Meyer of the Hooper Foundation.

This was one of our best meetings in both interest and attendance, in spite of bad weather conditions. Twenty-eight members and guests were present, representing doctors from Vallejo, Mare Island, Benicia, Suisun, Fairfield, Napa, Napa State Hospital, and the Veterans' Home Hospital.

John W. Green, *Secretary.*

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TULARE COUNTY

Dinner preceded the meeting of the Tulare County Medical Society, which was held at Motley's Café, Visalia, at 6:30 p. m. on January 26.

The new officers for 1936 were inducted, and Dr. J. C. McClure of Lindsay, president-elect, presided.

The meeting was opened with the reading of the previous minutes and corrected to report Dr. A. W. Preston of Visalia as newly elected censor in place of Doctor Rosson.

Dr. Harry Falk of Visalia was unanimously elected to membership.

Dr. John J. Sampson of San Francisco presented the scientific paper at this meeting. His subject was *The Autonomic Nervous System in Relation to Heart Disease.* The paper was further clarified by slides and general round-table discussion.

Mr. Harry W. Perry of Tulare, Division of Narcotic Enforcement inspector for the State of California, then explained the new narcotic laws and answered questions pertaining to regulatory measures.

The regular business part of the meeting was next transacted. Doctors A. W. Preston and A. Miller were appointed a committee to draw up a constitution and by-laws for the local society. Doctors Zumwalt, Cronemiller, and Weiss were reappointed to the Medical Milk Commission of the Tulare County Medical Society. Doctor Matthias was appointed in charge of the program for the February meeting.

A communication from the Parent-Teachers' Association relative to immunization was discussed and a motion made that the Tulare County Medical Society offer its services gratuitously in carrying out a program of immunization of incoming school children. This was unanimously carried and notification sent to Mrs. Wiley of the Parent-Teachers' Association.

At the conclusion of the business session Mr. Sweet of Tulare projected two reels, sponsored by Eli Lilly and Company, one on ergotartrate and one on thoracic surgery.

Karl F. Weiss, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (70)

Alameda County.—William R. McGrew.

Contra Costa County.—Allen Morrow.

Humboldt County.—Joseph Mark Brown, Francis H. O'Neil, Thomas Franklin Thorp.

Imperial County.—William H. Blackman, Henry B. Graeser.

Los Angeles County—

Blake S. Allison
Gerald H. Beck
Charles F. Bower
George W. Caldwell
V. Cecile Chavannes
Bernard R. Cullen
Harold Cummings
Arch J. Dickson
Solomon Fegen
Paul D. Foster
Vincent J. Gallagher
J. Stanley Gorrell
Harold P. Hamilton
Julius R. Hamilton
Elizabeth B. Hammons
Ethel R. Harrington
William E. Hart
Thomas M. Hearn, Jr.
E. G. Hughes
Bert R. Huntington
John R. Jimerson
John C. Kopelowitz
James O. Lindsey
Eric Lindroth
Ralph W. Maker
James J. Martin
W. L. Marxer
Morris Melnik
Julius B. Nelson
George F. Paap
E. G. Replogle
J. Milton Reynolds
Josephus Reynolds
Joseph C. Risser
Ward M. Rolland
Harry A. Roth
Lee E. Siegel
William H. Snyder
Frank D. Sweet
Robert H. Thompson
George G. Verbryck
William D. Wessley
Leonard C. Willems
I. E. Wolson
William G. Zantiny
Frederick B. Zombro

Marin County.—A. C. Daniels.

Merced County.—A. V. Andrews, Edward A. Patterson.

Sacramento County.—Hugh Carmichael.

San Bernardino County.—Clarence W. Dail, Aumond D. Myers, Edwin Harold Shryock, Marcus D. White.

San Diego County.—Emilio J. Palomeque.

San Francisco County.—Cabot Brown, Jacques P. Gray, Dorothy H. Kemp, Clara Lydia Kohls.

Santa Barbara County.—M. E. Mesirow, J. Kenneth Patterson.

Tulare County.—L. E. Watke, Ward C. Zeller.

Transferred (6)

Carl D. Benninghoven, from Alameda County to San Mateo County.

A. B. Bigler, from San Francisco County to Merced County.

Max Brannan, from Sacramento County to Merced County.

A. F. Giberson, from Marin County to Santa Cruz County.

Paul A. Lum, from Merced County to Monterey County.

J. J. O'Connor, from Los Angeles County to Indiana.

Resigned (3)

Herman Lando, from Los Angeles County.
B. A. McBurney, from Los Angeles County.
Ralph T. Smith, from Los Angeles County.

In Memoriam

Bonta, Maurice Buford. Died at Los Angeles, January 5, 1936, age 61. Graduate of Johns Hopkins University School of Medicine, Baltimore, 1904. Licensed in California in 1931. Doctor Bonta was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✠

Hawley, Max Charles. Died at Agnew, December 28, 1935, age 56. Graduate of Central College of Physicians and Surgeons, Indianapolis, 1904. Licensed in California in 1922. Doctor Hawley was a member of the Santa Clara County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✠

Oatman, Homer Clifton. Died at San Diego, December 28, 1935, age 65. Graduate of Hahnemann Medical College and Hospital, Chicago, 1895. Licensed in California in 1901. Doctor Oatman was a member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✠

Rigdon, Rufus Lee. Died at San Francisco, January 21, 1936, age 76. Graduate of Cooper Medical College, San Francisco, 1887, and licensed in California the same year. Doctor Rigdon was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✠

Roath, Clinton. Died at Los Angeles, January 26, 1936, age 52. Graduate of the California Eclectic Medical College, Los Angeles, 1911. Licensed in California in 1915. Doctor Roath was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✠

Rosoff, James A. Died at Compton, January 24, 1936, age 36. Graduate of Northwestern University Medical School, 1924, and licensed in California the same year. Doctor Rosoff was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

OBITUARY

Rufus Lee Rigdon

1859-1936

He was a kindly man. No verbal formula can better or more completely describe the character of Dr. R. L. Rigdon, professor emeritus of genito-urinary surgery of Stanford University, who died January 21, 1936, of pneumonia, after a short illness. Not brilliant, but sound, with nothing of the dramatic in his make-up, Doctor Rigdon in his life was a shining example of the influence for the good a simple, kindly, charitable spirit may have on all those who come into contact with it. The circle may not be large, but its emanations reach far beyond its limits, and the world is better because of it. I have known a few such men, but very few. Doctor Rigdon I knew close onto fifty years and never heard of his uttering a word of harsh criticism of anyone.

Quite typical of his attitude toward his patient was his treatment of a certain young man who required his services and who was very much ashamed of himself. He told a friend afterward that Doctor Rigdon was a wonderful man, "he didn't even scold me."

The son of Judge Rufus Rigdon and Indiana Scott Rigdon, he was born in Sacramento, September 4, 1859; thus he would have been seventy-seven next September. His preliminary education was in the public schools of Cambria, California, and for some years he taught school. He was graduated as doctor of medicine by Cooper College in 1887 at the age of twenty-eight.

He early became interested in genito-urinary surgery, was made assistant in the genito-urinary clinic at Cooper College in 1889 and professor in 1908. When Stanford Medical School was organized in 1909, he was appointed to the chair in Stanford University. He continued teaching in this specialty until in 1924, at the age of sixty-five, he was retired in accordance with the regulations of the University. However, he remained in active practice until last spring when, because of failing eyesight, he was obliged to give up, and was operated upon for cataract.

By sheer clinical experience, observation, and conscientious work, Doctor Rigdon acquired an extraordinary skill in the manipulations required by his specialty.

Medically speaking, he was peculiarly a product of San Francisco, for he never went to Europe; in fact, he made only one trip to New York, where he studied genito-urinary surgery for a short time. Doctor Rigdon was successful not only as a practitioner, but superlatively so as a teacher in his specialty, for his students are to be found throughout the state among the most successful of genito-urinary surgeons. He was a member of the county and state medical societies and of the American Urological Association. He wrote very little, but his contributions are found in the *Occidental Medical Times, California State Journal of Medicine, Journal of Urology*—clinical papers in his chosen field, full of the evidence of good judgment.

Doctor Rigdon had no children, but is survived by his widow, Jennie Lambert Rigdon, daughter of John S. Lambert, a California pioneer. A brother, State Senator Rigdon, died suddenly three or four years ago, and another brother, Howard Rigdon, two years senior of the doctor, died last September. A sister, Mrs. A. Flagg, died in October last.

Doctor Rigdon was not only respected by his professional associates, but was greatly beloved by his students and his patients.

EMMET RIXFORD.

Have you paid your 1936 dues? Have you framed and hung your membership certificate in your office? Better do so because people are being advised to consult members of county medical societies.

* * *

Coronado 1936 annual session. Plan to be there, but write now for your hotel reservations. Official program will be printed in the April issue. This annual session with a most attendance impelling program, the San Diego Exposition, and Decoration Day week-end holiday, should induce every member to plan to embrace these important opportunities that occur during the week of May 24.

* * *

Kansas City, American Medical Association, week of May 10. A large attendance is predicted. Plan to attend, but be sure you write for your hotel reservations.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Resolution Adopted by the San Mateo County Medical Society

WHEREAS, There is a desire on the part of many persons in San Mateo County for the adoption of a hospital service insurance plan, and some form of hospital service on an insurance basis is eminently desirable as a method of forestalling undesirable forms of state medicine; and

WHEREAS, The subject of hospital service has been presented before the Mills Memorial Hospital staff by the sponsors of the Associated Hospitals Service Fund, who described its operation in Santa Clara County; and

WHEREAS, Open debate established the fact that said plan contained certain undesirable features, namely, that it made provision for supplying medical service as well as hospital service in that the inclusion of radiologic and pathologic service is distinctly the inclusion of medical service, a fact repeatedly affirmed by the House of Delegates of the California Medical Association; and

WHEREAS, The duly constituted medical authorities of this state have determined that diagnostic medical service practiced by lay corporations is not only illegal and improper, but detrimental to the best interests of modern medical standards and in the end to the best interests of hospital patients; and

WHEREAS, The Alameda County Medical Society, the Los Angeles County Medical Association, the San Francisco County Medical Society, and the Council of the California Medical Association, after careful deliberation have expressed their unreserved opposition to any hospital service insurance plan which provides diagnostic medical procedures as well as hospital services; and

WHEREAS, The courts of California on five separate occasions have affirmed the fact that corporations cannot legally practice medicine; and

WHEREAS, The aforesaid Associated Hospitals Service plan unreservedly provides for the practice of medicine by corporate lay organizations; and

WHEREAS, A motion was made, seconded and carried, at the aforesaid meeting that approval be given to a plan for this community which did not include medical services such as radiology and pathology; now, therefore, be it

Resolved, That the San Mateo County Medical Society endorse the stand taken by the Mills Memorial Hospital staff in its approval of hospitalization insurance, when such provides hospital service exclusively; and be it further

Resolved, That the San Mateo County Medical Society whole-heartedly coöperates with the Council of the California Medical Association in its opposition to hospitalization insurance plans which supply diagnostic medical service as well as hospital service; and be it further

Resolved, That the San Mateo County Medical Society support the action of its Board of Directors in recommending that a representative or representatives of Mills Memorial Hospital, with the assistance of members chosen from this society, draw up an insurance plan to provide hospital service to persons of this county, and submit such a plan to the Society for its approval.

* * *

Appreciation for Good Will

Parke, Davis & Company has for many months prepared and published on behalf of the medical profession a series of "See Your Doctor" in leading popular lay magazines. Many of the profession have seen these advertisements, have experienced a glow of approval and appreciation, but there their reaction ended.

By these advertisements Parke, Davis & Company are rendering a material service to the public and, incidentally, to the profession at an expenditure of many thousands of dollars. The advertising copy is dignified, wholesome, and in good taste. The firm does not exploit any of its products. The public benefits, and many are undoubtedly induced to consult their doctor. Indirectly the doctor also benefits.

It is but proper that sincere appreciation be recorded and tendered to that firm. Such is the intent of this comment. Thanks to Parke, Davis & Company.

* * *

Hall of Medical Science

At the 1936 Pacific International Exposition in Balboa Park in San Diego an entire building with 22,000 feet of exhibit space has been designated the Hall of Medical Science. Through contacts made with the Exposition management by a committee of the San Diego County Medical Society the sponsorship, supervision and direction of this building has been assigned to the local committee in joint coöperation with a similar committee of our State Association. The building is located opposite the open-air theater on the main avenue of the park.

The Exposition opened February 12 and will close September 9. Since November these two committees, under the chairmanships of Doctors Lyle C. Kinney and Clarence G. Toland, with Dr. W. H. Geistweit as director, have been exceedingly busy arranging for and securing desirable medical exhibits. The Fair management is assuming all of the expense and is featuring this building and its exhibits in all of its publicity.

Space will not permit detailed description of the exhibits that have been installed. Mention can only be made of the more outstanding ones. They are:

1. California Medical Association, 600 square feet, containing seventeen panels of visualized education on medical subjects.
2. American Medical Association, 500 square feet, special exhibits of medicine, education and prevention.
3. State Department of Health—Psittacosis and Food Poisoning.
4. Board of Medical Examiners—Frauds and Impostors.
5. Stanford University—Chest.
6. University of Southern California—Heart.
7. Pacific Pathologists—Tumors.
8. Pacific Roentgen Club and Chicago X-Ray Club—Radiologic Diagnosis.
9. Bronchoscopy.
10. United States Public Health Service.
11. American Society for Prevention of Cancer.
12. Ivy Exhibit, Northwestern University.
13. State Dental Association.
14. College of Medical Evangelists — Development of Embryo.
15. American Vision Conservation Society.
16. Accident Prevention by California Automobile Association.
17. Maternal Welfare.

In addition, there are an equal number of varied exhibits on medical and health subjects.

An auditorium at one end of the building, seating 750 persons, has been provided. Afternoon and evening moving pictures on medical and health subjects will be shown daily.

It should be perceived that by means of this Hall of Medical Science, visitors to the Exposition will receive a better understanding in regard to scientific medicine, preventive measures, and public health welfare. These exhibits will go far in building sound public opinion in regard to public and private health.

* * *

Hospital Insurance

The Council of the California Medical Association has directed the Committee on Public Relations to act in an advisory capacity to all organizations that plan to organize and operate a hospital insurance nonprofit corporation. The Council has also approved the fundamental, governing principles that were formulated by the committee and published in the December and January issues.

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† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

In furtherance of these policies the committee has held several conferences with interested hospitals and members, and now submits the following supplementary report.

* * *

Digest—Conference of Committee on Public Relations With Representatives of Medical Specialties and Hospitals Relative to Hospital Care

February 1, 1936

1. Present: Doctors C. A. Dukes, J. H. Graves, Morton R. Gibbons, Sr., L. R. Chandler, Irving Ingber, Gertrude Moore, William E. Mitchell, Robert S. Stone, Raymond C. Taylor, John W. Crossan, R. R. Newall, and Harold Brunn.

2. Chairman Dukes, in calling the conference to order, stated that the purpose of the discussion was to determine a policy as regards to what constituted medical services in relation to hospital services.

3. The following is a very summarized digest of expressions that were voiced:

Dr. Loren R. Chandler: It is important to state what you mean and to observe what you mean. Principles must be formulated. Believes that radiology, pathology, and hydrotherapy constitute the practice of medicine. There can be no division in technical services. Doctor Chandler discussed four possible plans.

Dr. William E. Mitchell: Specialistic services cannot be divided into medical and technical parts. Counsel should be secured to draft a legal, uniform and fair contract for acceptance by all hospitals.

Dr. Morton R. Gibbons, Sr.: All branches of medicine should be viewed as an undivisable entity. Suggested a copartnership whereby conditions under which special services would be rendered and remunerated.

Dr. John W. Crossan: Hospitals must not practice medicine, and in any plan for hospital insurance no form of medical services should be incorporated or featured for sale purposes.

Dr. Raymond C. Taylor: Services cannot be divided and competent service rendered. To do so would lower standards of practice.

Dr. Irving Ingber: Cannot endorse division of any specialty. Proposed term in contract "x-ray facilities rendered" implies practice of medicine. Insurance plans should not include any form of medical services.

Dr. R. R. Newall: Inadvisable to permit a division of a specialty. Purpose of insurance is to insure hospital occupancy and should not be employed to sell medical services. Hospitals must not profit from medical services or from a division of medical services. Patients should pay for medical service.

Dr. Robert S. Stone: The special fields of medicine constitute medical practice. Hospitals are endeavoring to salvage parts of present hospital medical practices for financial profit. Restrictions are now enforced in regard to medical services in hospitals. Every physician does not have free rights to practice surgery in a hospital nor should he have free rights to do his own hospital laboratory work. To become an approved hospital, recognized pathologists and roentgenologists must sign record charts. If insurance contracts include the term "facilities of x-ray," the roentgenologist will never be remunerated. Raised question as to who should be legally responsible for burns, etc. No portion of medical services should be included in hospital service.

Dr. John H. Graves: Expressed doubt as to legality of proposals and feared eventual legislative enactments.

Dr. Harold Brunn: Expressed sympathy with both sides of the question. Feared that neither side would yield. Hospitals now practice medicine by making flat rates for professional and hospital services in maternity cases. Present conditions and practices bring about this crisis. Group Hospital Associations are enlisting lay public interest, and the lay public feel that these services through past practices are part of hospital services. It will be difficult to correct this public impression. Felt that radiology is the practice of medicine. Must consider whether hospital insurance is a movement to the advantage of medicine. Suggested further discussion with insurance plan proponents and if agreement cannot be reached, then to record action against undesirable features.

4. Further general discussion was had by all present.

5. Dr. Loren R. Chandler was requested to present to the San Francisco Hospital Council a summary of the views expressed.

6. On motion of Doctor Gibbons, duly supported, the following statement and conclusions were approved:

(*a*) That radiology, pathology, hydrotherapy, constitute the practice of medicine and that these and other special medical practices cannot be divided into professional and technical divisions.

(*b*) That the California Medical Association reaffirms its position in that medical services and care shall not be included in any insurance plan that offers hospital care.

(*c*) That the action of the California Medical Association in regard to free choice of hospital and physician be reaffirmed.

(*d*) That these statements and expressions are not related to other features of hospital services.

(*e*) That the California Medical Association, through its Committee on Public Relations, tender its advisory services to all "Class A" or "approved" hospitals contemplating the formulation of hospital insurance plans.

(*f*) That we hold that all forms of medical care or services should be eliminated from every hospital insurance plan.

(*g*) That there are no objections if hospitals can legally arrange in a satisfactory way to provide laboratory servives under provisions that are acceptable in regard to scope and remuneration to licensed specialists in the diagnostic laboratory branches of medicine.

(*h*) That these principles be sent to all "approved" hospitals in California for their information and guidance.

Charles A. Dukes, *Chairman.*
Frederick C. Warnshuis, *Secretary.*

The Committee on Public Relations desires to reiterate that all local plans should be first submitted to the local county medical society for approval ere endorsement is sought from this state committee. In due time, for the information of the general public and for their guidance, announcement will be made of a list of *approved* hospital insurance organizations.

THE WOMEN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION[†]

MRS. THOMAS J. CLARK..President
MRS. ELMER BELT......Editor and Chairman of Publicity

State Auxiliary News

National Auxiliary President Attends State Board Meeting.—The February meeting of the State Board of the Woman's Auxiliary to the California Medical Association, held in Los Angeles on the 10th, was especially honored by the presence of Mrs. Rogers N. Herbert of Nashville, Tennessee, president of the Woman's Auxiliary to the American Medical Association. On her transcontinental trip Mrs. Herbert visited many of the auxiliaries of the Middle West, as well as several along the Pacific Coast—in Washington, Oregon, and California. Every one who met her was impressed by her clear vision, her concrete grasp of the Auxiliary's work, her sympathetic and inspiring leadership, as well as her own delightful personality. Mrs. Herbert made brief talks both at the board meeting in the morning and at the tea given in her honor by the Los Angeles County Auxiliary at the Association headquarters in the afternoon.

The regular session of the State Board was called to order by the state president, Mrs. Thomas J. Clark of Oakland at ten o'clock. Answering the roll call of the secretary, Mrs. C. Kelly Canelo, were the following members: Mesdames Sargent, Barrow, Thornton, Makinson, Froelich, Colby, Belt, Brown, Shepherd, Green, Glaser, Annis, and Mrs. James F. Percy, the parliamentarian. The board was happy to welcome the members of the newly organized unit of Fresno, Mrs. Guy Manson, their president, and Mrs. C. M. Vanderburgh, the program chairman, and also to greet again their past president, Mrs. Philip Schuyler Doane of Pasadena, who attended at the special invitation of Mrs. Clark. Reports of the chairmen of the standing committees showed the year's work in full swing and the plans for the Coronado convention nearing completion.

[†] As county auxiliaries to the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Elmer Belt, chairman of the Publicity and Publications Committee, 2200 Live Oak Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Belt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editor to allocate two pages in every issue for Woman's Auxiliary notes.

Mrs. George H. Becker of San Francisco was appointed councilor for the sixth district.

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County Auxiliary Reports

Alameda County.—The Woman's Auxiliary to the Alameda County Medical Association met at the Claremont Country Club on January 17. At the Executive Board session plans for a large party were discussed, and it was decided that on February 21 a dessert bridge should be held at the College Women's Club in Berkeley. This met with the approval of the members and a number of them offered assistance. Mrs. Lloyd Kindall was appointed chairman. The proceeds from this party are to be used for the next Health Institute.

During the luncheon hour Mrs. T. Floyd Bell acted as hostess, assisted by members of the board. After the luncheon, the president of the Oakland Community Chest, Mr. Howard, gave a short talk. *The Education of the Blind* was the topic chosen by the speaker of the afternoon, Dr. Richard Slayton French, from the California School for the Blind. Mrs. David Froehlich then gave a review of Doctor French's book, "From Homer to Helen Keller." After a short business session the meeting adjourned.

LAURA S. HENRY, *Chairman of Publicity.*

* * *

Contra Costa County.—Mrs. Kaho Daily entertained the members of the Woman's Auxiliary to the Contra Costa County Medical Association in a very charming manner for their January meeting at her home on Lagunitas Avenue in Richmond. Despite the inclement weather, the meeting was very well attended. Interesting motion pictures, taken by Dr. and Mrs. Daily on a recent trip to Washington by way of the Panama Canal, were shown. Aerial views in color of the San Francisco Bay region, of Yellowstone and Glacier National Parks, and of Mexico, taken by Mr. G. A. Follett, were also shown by him.

ROSE K. ABBOTT, *Chairman of Publicity.*

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Fresno County.—Mrs. Guy Manson of Fresno was elected president of the Woman's Auxiliary to the Fresno County Medical Society at the January meeting in the University-Sequoia Club, which completed formal organization of the group begun last month. Thirty-two women attended the session, which was preceded by a dinner at the Omar Khayam Café. A constitution and by-laws were adopted, and the first Tuesday of each month was set as the regular meeting date. It was decided that those women who attended the first two meetings or who attend the next meeting will be included in the charter membership list. The other officers are: Mrs. Walter F. Weise, vice-president; Mrs. Otto Diederich, secretary; Mrs. A. E. Anderson, treasurer; Mrs. Charles H. Ingram, parliamentarian.

MRS. KENNETH STANIFORD, *Chairman of Publicity.*

* * *

Kern County.—The Auxiliary to the Kern County Medical Society entertained their state president, Mrs. Thomas J. Clark of Oakland, at luncheon in the Green Room of the El Tejon Hotel in Bakersfield on February 1. A nice representation was present, and enjoyed the story of the organization of the first medical auxiliary, and also a report of the National Auxiliary convention as told by Mrs. Clark. A short business meeting followed and a Nominating Committee, composed of Mrs. P. J. Cuneo, Mrs. S. C. Long, and Mrs. C. S. Compton, was appointed by Mrs. N. N. Brown, the president. There was a round-table discussion of the affairs of Kern County, and an invitation was extended to the newly formed Fresno group to meet with the Kern County Auxiliary in the near future. Mrs. Clark was the house guest of Mrs. Brown during her stay in Kern County.

MRS. N. N. BROWN, *President.*

Los Angeles County.—With a decorative motif of peach blossoms, auguring the early California spring, the first Auxiliary meeting of the year was held in the Association building on January 28. Mrs. John V. Barrow, president, who presided over the meeting, thanked the members for their generous Christmas donations, commended the committee in charge for their work in assembling the fifty baskets delivered at the holiday season, and asked Mrs. C. G. Stadfield, chairman of that committee, to read her report covering the details. A membership drive is to be featured this spring, with our goal one thousand members. This is not a very ambitious program, Mrs. Barrow pointed out, since that number would include less than one-third of those eligible to join. For the first time since the organization of the Auxiliary, we will have with us both our state and national presidents, and Mrs. Barrow extended an invitation to the members to attend a tea given in their honor in the Association building on Monday afternoon, February 10. Dr. George Parrish, city health officer and speaker of the day, then gave a résumé of the development of public health from the time of Hippocrates until the present time. Like Hans Zinsser, Doctor Parrish remarked that the downfall of nations occurred where there was little known of public health, that disease is the outstanding enemy of human life, and that it was the work of the scientist to follow disease into its lair and fight it to the death. It is interesting to note that it was not until 1647 that the first public health law was passed—a quarantine measure in the New England colonies—and that about two hundred years later Elizabeth Frye appears in Newgate prison as the first public health worker. In 1836 the first school for nurses is established, and under the influence of Florence Nightingale nursing becomes a profession. With the established benefits of vaccination and inoculation, public health steps out of the realm of theory and for the first time points the way toward the cause, cure and prevention of disease. The number of deaths occasioned by disease are stupendous; sixty million dying of smallpox in the eighteenth century, many millions exterminated by cholera, plague and yellow fever, only because people were not interested in public health. It takes a catastrophe such as the World War or the sinking of the *Lusitania* to make the world health-minded; in fact, concluded Doctor Parrish, one million unnecessary deaths occur each year because of lack of interest in health measures.

Mrs. Walter H. Boyd of Long Beach, district chairman of *Hygeia* and public health, entertained one hundred guests for tea at the Pacific Coast Club on January 17. Dr. Alvin Foord, professor of pathology at the University of Southern California, discussed the subject of *Animal Experimentation,* showing slides to illustrate his lecture. Mrs. John V. Barrow also addressed the meeting. Other guests included the local presidents and health chairmen of the Parent-Teachers' Association, council president and chairman of health, and the school nurses.

A membership tea was held on January 24 at the home of Mrs. R. L. Thompson of Burbank in honor of the Board and the local doctors' wives. Mrs. John V. Barrow made a short talk encouraging the women to support the Auxiliary, after which a very lovely tea was served.

The Auxiliary has spent a very active month working under the direction of Mrs. John V. Barrow, women's chairman, in sponsoring the President's birthday ball held January 30 at the Biltmore Blue Room and at the Palamar Dance Hall, the proceeds of which went toward the infantile paralysis fund. Due to the untiring efforts of both Dr. Harlan Shoemaker, men's chairman, and Mrs. Barrow, together with their committees, the event was a tremendous success, over eight thousand tickets being sold and both rooms filled to capacity.

MRS. HAROLD E. CROWE, *Corresponding Secretary.*

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Orange County.—The Woman's Auxiliary to the Orange County Medical Association met at the home of Dr. and Mrs. Merrill W. Hollingsworth in Santa Ana on the afternoon of February 4. Dr. Alvin Foord, pathologic director of the Pasadena Hospital Association, gave an intensely interesting talk on the value of animal experimentation. He showed vividly the part it plays in everyday medicine and the necessity of its continuance if medicine is to progress. Dr. K. H. Sutherland, Orange County health officer, discussed as a topic of current interest the experiments of Kolmer and Brodie in developing a vaccine for immunizing against poliomyelitis, its apparent success for a time, and the present status of vaccine therapy with regard to that disease.

At the business meeting which followed, with Mrs. Ray Green presiding, the Auxiliary voted to continue giving subscriptions to *Hygeia* to worthy organizations, and to form a welfare committee to investigate cases which the Auxiliary might be able to help. Mrs. G. Wendell Olson and Mrs. E. W. Kersten served tea at a daffodil-centered table. Co-hostesses with Mrs. Hollingsworth were: Mesdames Harry Huffman, John McAuley, G. Emmett Raitt, and Arthur C. Robbins.

Jessie Q. Raitt, *Publicity Chairman.*

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San Diego County.—The Woman's Auxiliary to the San Diego County Medical Society presented a health education program of timely and instructive talks at the Y. W. C. A. auditorium on Tuesday afternoon, January 21. Invitations were sent to the presidents and to the various chairmen interested in child and community health problems of the Parent-Teachers' Association, the Camp Fire Girls, the Girl Scouts, the Y. W. C. A., and similar organizations. The public also was invited to attend and take advantage of the opportunity to hear pertinent discussions concerning many of the factors of public and personal health.

Dr. Benjamin F. Eager, president of the San Diego County Medical Society, assisted in the arrangement of the program and presided as chairman at the meeting. Dr. W. H. Geistweit, Jr., spoke on *The Functions of the Medical Society in the Community,* and described the medical associations as the trustees for the health of the community. Dr. J. F. Churchill, in his talk, *Principles of Diet and Some Common Dietary Errors,* stated sound dietary rules and gave some specific suggestions regarding reducing diets and factors leading to weight increase. Mrs. Esther Keep, a social welfare worker, explained the method of operating the Central Medical Service and its aim to "help low-income groups have adequate medical care at fees fair both to the patient and to the doctor." Dr. Robert G. Sharp, a pediatrician, spoke on *Needless Worries for Mothers* and distinguished between protective forethought and futile and unnecessary concern. Dean A. G. Peterson of the State College explained the Qualifying Certificate Law and its protection of educational standards in the healing arts. The program concluded with a paper by Dr. George Kilgore on *The Effect of Good Sight in a Child's Adjustment to Everyday Life.* In speaking of the school child, Doctor Kilgore said: "Ninety per cent of the child's perception is through his vision, as compared with five per cent through hearing and the balance through the other senses."

At the conclusion of the conference tea was served, at which Mrs. Emil Black, San Diego Auxiliary president, and Mrs. A. J. Thornton, the state president-elect, acted as hostesses.

* * *

San Francisco County.—The regular meeting of the Woman's Auxiliary to the San Francisco County Medical Society was held at the Society's headquarters, 2180 Washington Street, on Tuesday, January 21, with our newly elected president, Mrs. J. C. Geiger, presiding.

Mrs. Thomas Clark of Oakland, state president, and our guest of honor and speaker for the afternoon, told us of the birth of the national organization, its purposes and its growth in the United States, particularly in California. She expressed her gratification at the founding of the San Francisco Auxiliary, and felt that it would be an inspiration to other counties to organize likewise.

Mrs. Clark also extended the invitation of the Alameda Auxiliary to be present at the luncheon to be given in honor of Mrs. Roger N. Herbert, national president, at the Claremont Country Club on February 5.

Mrs. Geiger then presented the officers for the ensuing year: Mrs. J. C. Geiger, president; Mrs. Clain F. Gelston, first vice-president; Mrs. Rodney A. Yoell, second vice-president; Mrs. Emmet L. Rixford, Jr., recording secretary; Mrs. Coleman Block, corresponding secretary; Mrs. Edmund J. Morrissey, treasurer.

Directors—Mesdames Hans Barkan, George H. Becker, Anthony B. Diepenbrock, Howard B. Dixon, Howard Fleming, Ralph Soto-Hall, John J. Sampson, Zura O. Waters, and Fred H. Zumwalt.

Alternates—Mesdames J. E. Bolin, James B. Herring, and Otto Laist.

The president made the following appointments: Mrs. Harry Oliver, Admission chairman; Mrs. L. Roncovieri, Telephone chairman; Mrs. George H. Becker, Social chairman; Mrs. Zura Waters, Membership chairman; Mrs. Fred Zumwalt, Publicity chairman; Mrs. Howard B. Dixon, parliamentarian.

Mrs. Becker announced the first social event on the calendar: a luncheon at the Palace Hotel on Tuesday, February 18, to honor the past president *pro tem,* Mrs. A. S. Musante, the new president, Mrs. J. C. Geiger, and Dr. Dunlop Strickler, the original organizer and advisor. The guest speakers will be Dr. P. K. Gilman, president of the County Medical Society, and the past president, Dr. J. C. Geiger.

Mrs. Coleman Block, chairman of the Constitution Committee, then read the constitution to the members of the Auxiliary, with such recommendations for change as had been made by her committee. It was unanimously accepted as read and referred to the Advisory Committee of the County Medical Society, which likewise accepted it.

We look for a successful and stimulating year under the able leadership of Mrs. Geiger and her fellow officers, and with the coöperation of the Auxiliary members.

Amy S. Zumwalt, *Publicity Chairman.*

NEVADA STATE MEDICAL ASSOCIATION

R. O. SCHOFIELD, Boulder City	President
C. E. SECOR, Elko	President-Elect
HARRY W. SAWYER, Fallon	First Vice-President
W. H. FROLICH, East Ely	Second Vice-President
HORACE J. BROWN, Reno	Secretary-Treasurer and Associate Editor for Nevada

COMPONENT COUNTY MEDICAL SOCIETIES

The Clark County Medical Association held its annual election meeting the second Tuesday of January at the Sal Sagee Hotel. The officers elected for the current year are as follows: President, J. R. McDaniel, Jr., of Boulder City;vice-president, R. L. Fenlon of Searchlight; secretary-treasurer, A. Blinstrub of Las Vegas.

* * *

The second meeting of the year was held the second Tuesday of February at the Sal Sagee Hotel, Las Vegas. At this meeting the program for the coming year was decided upon, and various speakers on a wide variety of subject-matters were chosen to give short talks at the regular monthly meetings.

Doctor Schofield, president of the Nevada State Medical Association and head of the Six Companies' Hospital in Boulder City, invited the members of the Clark County Medical Society to a dinner at the Six Companies' Hospital at a date to be decided upon in the near future.

Doctor Nash, recently appointed Boulder City C. C. C. physician, formerly with a large C. C. C. camp in Wyoming, gave an interesting talk on the experiences of a C. C. C. physician. This talk was enjoyed by all, and was very well given.

The meeting was adjourned with the promise of a very active and interesting year ahead.

A. Blinstrub, *Secretary.*

Register in order that you may vote in the important elections of the year. And when you vote be informed as to all the qualifications of candidates.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, Kansas City, Missouri, May 11-15, 1936. Olin West, M. D., 535 North Dearborn Street, Chicago, Illinois, Secretary.

California Medical Association, Coronado, May 25-28, 1936. Frederick C. Warnshuis, M. D., 450 Sutter Street, San Francisco, Secretary.

California Tuberculosis Association, Sacramento, April 2-4, 1936. Mr. W. F. Higby, 45 Second Street, San Francisco, Executive Secretary.

Medical Broadcasts*

The American Medical Association broadcasts over WEAF, the red network instead of the blue, as formerly, and certain additional stations of the National Broadcasting Company at 5 p. m., eastern standard time (4 p. m. central standard time, 3 p. m., mountain time, 2 p. m. Pacific time), each Tuesday, presenting a dramatized program with incidental music under the general theme of "Medical Emergencies and How They Are Met." The title of the program is "Your Health." The program is recognizable by a musical salutation through which the voice of the announcer offers a toast: "Ladies and Gentlemen, Your Health!" The theme of the program is repeated each week in the opening announcement, which informs the listener that the same medical knowledge and the same doctors that are mobilized for the meeting of grave medical emergencies are available in every community, day and night, for the promotion of the health of the people. Each program will include a brief talk dealing with the central theme of the individual broadcast.

Pacific Network.—The stations on the Pacific network are KGO KPO KFI KGW KOMO KHQ KFSD KTAR.

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San Francisco County Medical Society. — The radio broadcast program for the San Francisco County Medical Society for the month of March is as follows:

Tuesday, March 3—KYA, 6 p. m.
Tuesday, March 10—KYA, 6 p. m.
Tuesday, March 17—KYA, 6 p. m.
Tuesday, March 24—KYA, 6 p. m.
Tuesday, March 31—KYA, 6 p. m.

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Los Angeles County Medical Association.—The radio broadcast program for the Los Angeles County Medical Association for the month of March is as follows:

Saturday, March 7—KFI, 9 a. m. Subject: The Road of Health.
Saturday, March 7—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, March 10—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, March 14—KFI, 9 a. m. Subject: The Road of Health.
Saturday, March 14—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, March 17—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, March 21—KFI, 9 a. m. Subject: The Road of Health.
Saturday, March 21—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, March 24—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, March 28—KFI, 9 a. m. Subject: The Road of Health.
Saturday, March 28—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, March 31—KECA, 11:15 a. m. Subject: The Road of Health.

Sunday Pathology and Radiology Conferences at Coronado. — Sunday, May 24, 1936, the day before the California Medical Association annual session, will be devoted to the annual Cancer Commission conferences on radiology and pathology. Programs will be announced in later issues of CALIFORNIA AND WESTERN MEDICINE. Put the date on your calendar now.

Infantile Paralysis: Warm Springs Foundation Support of California Studies.—The Hooper Foundation of the University of California has received $5,000 from the committee in charge of distribution of the funds from President Roosevelt's birthday balls, for the purpose of continuing studies in the cause and treatment of infantile paralysis.

The work, which is general in its nature, is being carried on under the direction of Miss B. F. Howitt, associate in research medicine.

Distribution of the fund this year was made to a number of schools, colleges, and other institutions engaged in infantile paralysis research and treatment. The University's interest in this work centers around a pool in the University Hospital, fashioned after the famous Warm Springs pool in Georgia, and in research and treatment work in other departments of the University Medical School.

History of Science Society.—Dr. Chauncey D. Leake, professor of pharmacology in the University of California Medical School, has received official notification of his election to the presidency of the History of Science Society of the United States at the recent meeting of the Society in St. Louis. According to Doctor Leake, the honor was conferred because of the leadership of the University in the study of the history of science as exemplified by the works of Professor James Westfall Thompson of the department of history, Dr. Charles Kofoid, chairman of the department of zoölogy, Dr. William A. Setchell, professor of botany, emeritus, Dr. V. F. Lenzen, associate professor of physics, Dr. Herbert Evans, professor of anatomy, and the late Professor Florian Cajori.

The University has been enabled through this study to attract leading scientific scholars to present courses on the Berkeley campus. Leake's work relates to certain phases of Roman hygiene, and includes a translation and commentary of Harvey's work on the circulation of the blood, a work on medical ethics and another on the history of anesthesia. He is now working with Professor Henry Lutz of the department of Egyptology on a commentary on the Hearst medical papyrus, a prized possession of the University, which Doctor Lutz has translated. He is also working with Dr. J. B. de C. Saunders, associate professor of anatomy, on an appreciation of the works of Vesalius and other anatomists of the sixteenth century.

The Society is endeavoring to popularize a study of the history of science as the best means of acquainting the public with scientific advances. To this end it is coöperating with the University and the California Academy of Sciences. The headquarters of the Society are in Washington, D. C.

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* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Medical Fraternity Dinners at Coronado Annual Session.—Medical fraternities desiring to plan banquets for the State Medical Association meeting in May, please have representatives communicate with the undersigned: General Committee, State Association Meeting, 1410 Medico-Dental Building, San Diego.

Sixth International Congress on Physical Medicine. The Sixth International Congress on Physical Medicine will be held at London May 12-16, 1936. It will consist of sections on kinesitherapy, physical education, hydrotherapy and climatotherapy, electrotherapy, actinotherapy, radiotherapy, and radium therapy. American participants will sail from New York on May 2 on the motor vessel *Britannic* and return on May 31 on the steamship *Transylvania*. Dr. Richard Kovacs, 1100 Park Avenue, New York, is executive of the American Committee.

Tuberculosis Mortality by Age Groups.—The "Bulletin of the California State Board of Health" announces completion of a study of tuberculosis mortality by age groups in California since 1910. It is interesting to note that during recent years the reduction in the tuberculosis death rate has been most outstanding in those from thirty-five to forty-four years of age. The highest rate is in individuals who are sixty-five years of age and over, although the tuberculosis death rate for infants is still very high.

Chiropractors in California.—A news item gives the following:

"Fifty-two chiropractors who passed examinations held last month in Sacramento have been added to the 3,300 licensed by the state to practice their profession, Dr. C. O. Hunt, executive secretary of the State Board of Chiropractic Examiners, announced recently. . . .

"The new additions to the profession bring California's total of licensed chiropractors to well over one-quarter of the total number of licensed chiropractors in the entire world. Los Angeles County alone has 1,685 licensed chiropractors, Doctor Hunt reported."

California's New Registration.—A news item in the lay press gives figures showing why it was desirable that no attempt should be made this year to secure the 200,000 valid signatures of voters, necessary to place the basic science initiative on next November's ballot form.

"Registration of Los Angeles County voters passed the three-quarter of a million mark today when County Registrar William M. Kerr announced that 754,265 had enrolled.

"The registrar, however, estimated that there still was a half-million persons eligible to vote who had not yet registered. They must do so not later than March 26 next if they desire to take part in the presidential primary on May 5 and must state party affiliations when registering in order to vote for delegates to the party national conventions. . . .

Too Many Claims.—Although not nearly so common as they used to be, there are still occasional quack medicine venders who stick to the old and illegal labels that claim for their nostrums curative powers over at least a good part of the ills and ailments that affect mankind.

Recently, for example, drug inspectors picked up samples of what were labeled "Devonshire's Earth Salts," marketed by F. S. Powers & Co., Crystal Lake, Illinois. These were offered as a treatment for the following assortment of diseases and conditions: pneumonia, cancer, diphtheria, typhoid fever, kidney and bowel trouble, appendicitis, intestinal worms and tapeworms, locomotor ataxia, nervous disease, rheumatism, stomach trouble, skin diseases, malaria, high blood pressure, boils, abscesses, goiter, tumors, stomach ulcers, chills, colds, bronchitis, snake-bites, delirium tremens, diabetes, venereal diseases, heart trouble, sterility in men and women, and also for "other disease conditions."

The nostrum got into interstate commerce and that brought it under the Federal Food and Drugs Act, which penalizes sweeping claims not founded on fact and contrary to medical experience. A federal court fined the seller.

A Press Dispatch States, "Science Isolates Virus Causing Common Colds."—The long elusive cause of the common cold has been kept bottled up successfully for twenty months in a test tube at Columbia University.

Dr. A. Raymond Dochez, professor of medicine at Columbia School of Medicine, announced recently that this long period of artificial cultivation, completely away from the human body, makes it certain that the cause is an invisible virus.

In the Columbia tube there are no bacteria or other forms of infection visible. But in all the twenty months its liquid contents have retained the power to give a human being or a chimpanzee violent cold. In all that time the invisible cause has lived and reproduced itself on chicken embryo for food.

This work of Doctor Dochez is in line with other medical experiments pointing to the same common cold cause, and to a double "complex" as the mechanism of human colds.

In this double complex the invisible virus is the basic cause. Its function is to weaken the respiratory organs. Thus weakened, the organs are attacked by common, visible bacteria, which bring the complications familiar to cold sufferers.

Qualifications for Public Health Nurses.—The California State Board of Public Health, at its regular November meeting, established the following qualifications for a certificate in public health nursing, as provided in Section 4225b of the Political Code:

1. Applicant shall be a registered nurse under the law of California.

2. Applicant who has completed a course in public health nursing from a school whose curriculum has been approved by the California State Board of Public Health may receive a certificate without examination.

3. Applicant who presents evidence of having engaged in public health nursing for a period of two years in connection with a public health organization approved by the State Board of Public Health may receive a certificate of public health nursing on passing on examination.

4. All applications for examination as public health nurse shall be filed in the office of the State Department of Public Health, 312 State Building, San Francisco.

5. All applications shall have attached to them an affidavit, sworn to before a notary public, as to qualifications outlined in paragraphs 2 and 3.

6. These regulations shall be in force and effect on and after January 1, 1936.

A Doctor's Odyssey: Le Roy Crummer.—Le Roy Crummer, internationally known heart specialist and book collector, had a passion for life and a genius for friendship. The volume, "A Doctor's Odyssey," by A. Gaylord Beaman, and from the Johns Hopkins Press, gives an intimate and sympathetic portrayal of Doctor Crummer, who was kindly, generous, humorous; whose life was useful and, at the same time, colorful; who evolved a philosophy of living that was an inspiration to the younger medical men. Doctor Crummer had the finest private collection in this country of early medical books and the details of his trips abroad, when he bought his books, makes fascinating reading.

The volume, as will be seen by the contents overleaf, is divided into six biographical parts: Early Years, The Doctor, The Bibliophile, The Writer, The Instructor, and The Man. Many contributions have been made by Doctor Crummer's close friends, including such well-known persons as Dr. George Dock, the famous heart consultant in Pasadena; Dr. Herbert M. Evans, scientist and discoverer of vitamins E and F, and director of the Institute of Experimental Biology at the University of California; Dr. Logan Clendening, author of "The Human Body" and many other popular books. Dr. Henry E. Sigerist, director of the Institute of the History of Medicine at the Johns Hopkins University, and Paul Jordan-Smith, author and critic, are among those who have written of Doctor Crummer as a bibliophile. A. Edward Newton, famous bibliophile and author, is responsible for the introduction. A complete list of the contributors will be found in the contents.

Dried Fruits.—At the holiday season many complaints were received relative to the poor quality of dried fruits that were placed in fancy packages for Christmas trade. The packers made a serious effort to prepare a first-class Christmas fruit pack, but some of the smaller concerns have been guilty of attempting to recondition moldy, insect-infested fruit for consumer consumption. An investigation revealed one lot of one thousand pounds of dried fruit that was considerably below standard. This was in a single packing plant. It was quarantined and resorting denied, as the material could not be brought up to standard. During November approximately five thousand pounds of unfit dried fruit were destroyed by order of the California State Board of Health.

Vitamin E Crystallized: Successful Research at the University of California.—The last of the major vitamins to be isolated in a comparatively pure form, vitamin E, has just been reduced to a crystalline derivative by Dr. Herbert M. Evans, professor of experimental biology, and two associates, Dr. O. H. Emerson, and Mrs. O. H. Emerson, on the Berkeley campus.

Vitamin E is the sterility preventing food factor. It occurs in many foodstuffs, notably in lettuce and the germ centers of cereals such as wheat and rice, and is an essential for reproduction in animals. Human beings practically always obtain sufficient quantities of it from a balanced diet, but the diet of animals sometimes is deficient in this respect though otherwise adequate.

The successful isolation of vitamin E in a crystalline derivative marks the close of thirteen years of research by Doctor Evans and his associates since the vitamin was first discovered by him at the University of California.

The final step in this process was taken by Dr. O. H. Emerson and Mrs. O. M. Emerson, both graduates of the University, working with Doctor Evans. Previously the vitamin E potent substance had been concentrated in the form of a thick red oil obtained from wheat germs which was active enough to prevent sterility in rats if given in a single dose of one or two one-hundredths of a gram. Efforts to further purify the substance were unsuccessful, however, until Dr. and Mrs. Emerson applied a chemical method which they had learned in Germany.

This method consists of the use of cyanic acid as a reagent. This acid leads to the formation of crystals in the red wheat germ oil, and when these crystals are removed and dissolved they yield a substance which will overcome vitamin E sterility of rats in single doses of three one-thousandths of a gram.

The potent substance is classified as a form of higher alcohol and an empirical formula has been suggested. The exact formula will require further research. It is pointed out that there may be other substances which are vitamin E potent, as vitamin A is found in at least five naturally occurring substances. But the crystalline derivative now obtained is expected to provide a means of studying the precise chemical structure of vitamin E.

The United States Public Health Service: Surgeon-General's Report to Congress.—In his annual accounting of the public health of the United States, the Surgeon-General of the United States Public Health Service, reporting on the activities of his organization for the 137th year of its existence, states that health conditions in general remained good during the year ended June 30, 1935. For the calendar year 1934 the preliminary death rate was 10.9 per 1,000 population, slightly higher than in 1933, in which year the rate was 10.5, but lower than any recorded rate earlier than 1932, when the death rate was 10.8 per 1,000.

It is of especial interest to note that the birth rate increased in 1934, being three per cent higher than in 1933; which, being stated in another manner, means that there were 94,000 more babies born in the United States in 1934 than in 1933. The birth rate in this country has been decreasing for several decades.

The infant mortality rate, that is, deaths of infants under one year of age per 1,000 live births, increased slightly in 1934 as compared with 1933, the rates for these years being 59.9 in 1934 and 58.2 in 1933; but the 1934 rate was lower than the rate for any year earlier than 1932.

The tuberculosis death rate continued to decrease, and the 1934 rate of 56.2 per 100,000 population was the lowest ever recorded by the Pacific Health Service.

In May, 1934, an outbreak of poliomyelitis (infantile paralysis) occurred in California, and reached its peak in June. For the year the incidence of this disease was higher than usual in the Pacific Coast states and in the Northwest. In the early summer of 1935 an outbreak of poliomyelitis occurred in North Carolina and Virginia, and later increased incidence of the disease was noted in most of the New England States, New York, New Jersey, Michigan, Kentucky, and some of the other states.

A fatal case of bubonic plague occurred in Lake County, Oregon, in May, 1934, and a case was reported from Tulare County, California, in June. This disease, which is also a disease of rodents, is propagated on the West Coast principally in ground squirrels and rats, and is transmitted from rodent to rodent and from rodent to man by infected fleas. The extension of the infection northward into Oregon and Montana was noted for the first time in 1934. Rodents carrying this infection were found in California, Oregon, and Montana during the year.

A total of 5,371 cases of smallpox was reported to the Public Health Service for the calendar year 1934, the smallest number for any year since records have been kept. In ten states and the District of Columbia no case of smallpox was reported in 1934.

During the year 254,551 cases of syphilis and 161,810 cases of gonorrhea were reported to the Public Health Service by state health departments. That these figures do not represent the true conditions regarding the prevalence of venereal diseases, however, is shown by special surveys, which indicate that there are approximately 518,000 new cases of syphilis in the United States each year and 1,555,000 cases of gonorrhea. The importance of extensive and concerted effort on the part of all health organizations in combating these diseases is emphasized, if progress is to be made against them.

During the year a study was begun of the possible value of two vaccines used for the first time on human beings to produce immunity against the dreaded infantile paralysis, and the findings will have an important bearing in determining whether or not the use of such vaccines is safe and should be continued. Laboratory experiments showed that monkeys treated intranasally with sodium sulphate solution were rendered resistant to intranasal installation of poliomyelitis virus. The outbreak of this disease in California in 1934 was mild as to severity and showed a tendency to attack older children and young adults to a greater extent than in former years.

The net production of Rocky Mountain spotted fever vaccine in the fiscal year, 284.4 liters, was 36.6 liters more than in 1934, and about one-fifth of the supply was furnished to the Emergency Conservation Corps in the infected areas. Cases of this disease were reported for the first time in Illinois and Oklahoma, and new endemic areas were reported in Montana, Idaho, and California. The disease is now known to be present in thirty-four states.

Studies of various phases of the relation of sickness to the depression were continued, and great differences in sickness rates were found between persons on relief and those not on relief.

Further studies on growth and the economic depression showed that there were no striking differences between the weight of children in 1934 as compared with the average weights from 1921 to 1927.

In the milk investigations on the bactericidal treatment of milk-cans by hot air, it was found that a temperature of 170 degrees Fahrenheit for thirty minutes devitalizes all milk-borne pathogenic organisms.

The first Federal Narcotic Farm located at Lexington, Kentucky, was dedicated and opened for admissions on May 29, 1935. This institution is for the care and treatment of addict prisoners from federal penal and correctional institutions and for those narcotic addicts who voluntarily apply for treatment. It has one thousand beds. The other Narcotic Farm will be located at Fort Worth, Texas, and it was expected that the contract would be let during the latter part of 1935.

Pacific Coast Surgical Association.—Clinics for members only were held Wednesday morning at the University of California Hospital, and Thursday morning at the Lane-Stanford Hospital. Wednesday noon there was luncheon for the members and their wives at the San Francisco Golf Club. In the afternoon they played golf.

Wednesday evening the members were guests at a special dinner entertainment which had been arranged for them at the Bohemian Club.

The members left by special train at three o'clock Thursday afternoon for Del Monte, where the scientific sessions were held for the next two days. Friday evening the annual banquet took place, at which Dr. Frank Lynch of San Francisco was toastmaster.

The officers of the association are: President, Dr. Harold Brunn of San Francisco; first vice-president, Dr. Raymond E. Watkins of Portland; second vice-president, Dr. William A. Taylor of Ellenburg; secretary, Dr. Edgar L. Gilcreest of San Francisco.

Councilors—Doctors E. C. Moore (chairman) of Los Angeles, Homer D. Dudley of Seattle, Howard C. Naffziger of San Francisco, Joseph K. Swindt of Pomona, and Eugene W. Rockey of Portland.

Important subjects which were discussed in Del Monte included: surgery of the lungs, abdomen, pelvis, nerves, stomach, blood vessels, and the bladder. A special symposium on graduate instruction in surgery was held.

Incidents in a Medical Fairy Tale: The Dionne Quintuplets.—In the last five hundred years there have been thirty-three cases of quintuplets authentically recorded. Of these one group of five lived for fifty minutes, and one out of another group survived for fifty days.

Birth.—A "hurry up" call to the Dionne home at 4 a. m. on May 28, 1934, marked the beginning of a visit which resulted in the commencement of this fairy tale. The mother was suffering from pre-eclampsia and did not expect to be confined for two more months. On arrival at the home two babies were born, a third arriving, and that one was followed in a few minutes by two more.

It seemed impossible that all or even any of these babies would survive, but they were wrapped up in the only available coverings and kept as warm as possible. There was only one placenta.

The early struggle for the continued existence of these babies was intense, and the anxiety great. (There have been many other cares and worries associated with the survival and growth of these babies, due to the world-wide publicity which they have received.)

Temporary Guardianship.—Toward the end of July, 1934, a temporary guardianship board was appointed by the government, with the consent of the parents, to circumvent certain exploitation plans.

Hospital Reception.—On September 22, 1934, the five babies were removed to their new hospital home, where details of infant care could be properly carried out. There was a decided improvement in their general health following this move.

Since then there has been a normal progress in their physical and mental growth. With the exception of an upper respiratory tract and middle-ear infection, they have been free from all other ailments.

Wards of the Crown.—In March, 1935, the Dionne Quintuplets Guardianship Act was passed by the Ontario Government which made the Dionne quintuplets special wards of the Crown.

*At One Year.**—At one year of age, the babies are healthy and happy; their skin is tanned, their muscles firm, and their bones well proportioned. In physical appearance they resemble one another closely, but not so in temperament. A scientific psychologic study has commenced and will be carried on in the future. This investigation shows all the babies to be "at age" intellectually and developmentally, with the larger two slightly above.

The Future?—It would indeed be a wise man who could tell what the future has in store for these babies. Every effort will be made to keep them healthy and surround them in their growth period with the best traditions of their race, their religion, and their country.

New York Polyclinic Medical School and Hospital. At a meeting of the Clinical Society of the New York Polyclinic Medical School and Hospital held on January 6, the following program was presented: (1) "Surgical Treatment of Primary Carcinoma of the Lung" by Dr. Richard H. Overholt (Lahey Clinic, Boston, Mass.). The discussion was opened by Doctors Howard Lilienthal, Chevalier Jackson, and Pol N. Coryllos. (2) "Surgical Management of Prostate Obstruction" by Dr. Joseph F. McCarthy. The discussion was opened by Doctors Oswald S. Lowsley, Abraham Hyman, Clarence G. Bandler, and Daniel A. Sinclair. Dr. Russell L. Cecil gave an afternoon lecture on Wednesday, January 22, on "Backache."

Taffari Makonnen Hospital, Dessie Wollo, Ethiopia.* "I suppose you have read in the papers about our hospital in Dessie. The hospital was bombarded a little more than a week ago. We had a very exciting time. About six weeks ago we began to feel that there was a war going on. Large armies passed through Dessie on the way to the northern front, and many of the soldiers became sick on the way. This is the only hospital between Addis Ababa and the front, situated two weeks' marching distance from the capital.

"We have a capacity of fourteen beds, but during the last few weeks have had an average of sixty-five patients. This number was greatly increased for a couple of days just after the bombardment. You can imagine what an extra load it has put upon us and the hospital. We operated all the day of the bombardment until about nine-thirty in the evening, and there was so much to do that we worked long after before we could retire. Fortunately for us, there were several Red Cross ambulances in the town that day. They were on their way to the front. When the attack came, they helped greatly. It would have been impossible for us to carry on alone, as I am the only practicing physician between Addis Ababa and the north front to care for all the wounded. We have millions of people from which to draw our patients. Many died shortly after they were brought in; others lived for a day or so. We saw torn-off extremities, opened-up abdomens, lacerated faces, and broken skulls. It was terrible. People who fled the city are now returning and coming in for treatment. Their wounds are in an awful condition, as you can readily understand. The natives usually put dirt and filth in the wounds so as to keep them from bleeding too much.

"The conditions we work under are rather primitive. We have no electricity, no running water, and our helpers are untrained natives. When the hospital was bombarded, fire started in two of the rooms. We just happened to have water enough on hand to stop the fire. Our well is located about four hundred meters from the hospital and all the water has to be carried on a donkey. During these days we have two donkeys going all day, and even then it has been impossible to have water enough. Another thing that makes our work very difficult is that the sun sets about six o'clock and it is dark about fifteen minutes later. Then, we have to get out the old stable lanterns and carry them with us whenever we have to see the patients, and that is very often, of course. I am always afraid that a serious case may come in at night. Not long ago a soldier was brought in about five-thirty in the afternoon. His abdomen was cut open and the intestines handing outside in a dirty 'shamma' (toga). I had to operate. The old kerosene lanterns had to be hung on the outside of the windows, as we had only ether to use. It was not an easy thing to sew up five big lacerations in the bowel by such a light. However, we got through, and the man lived for a few days. Had we a good light it certainly would have helped a great deal. One afternoon twenty-one wounded men came in at one time, but we finished with them before dark. When things like these happen, I envy you at home who have all the most modern equipment at your disposal. Our work here is watched more closely than yours at home and the results or lack of results reported among the superstitious people." . . .

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* In January, 1936, these babies were nineteen months old.

* Excerpt from a letter written under date of December 16 from A. R. Stadin, class of 1934, College of Medical Evangelists, Los Angeles, who is in charge of the Taffari Makonnen Hospital, Dessie Wollo, Ethiopia:

Widespread Deception Found in Rubbing Alcohol.—Rubbing alcohol is frequently adulterated and misbranded, federal drug officials find. In recent years rubbing alcohol compounds have been used widely for massage and bathing purposes. In December and January, activity in inspecting and testing supplies on the market have led to seizures involving 13,000 bottles, shipped under various names by dealers in the Eastern States. In all the seized rubbing compounds, the examining officials found isopropyl alcohol instead of ethyl (grain) alcohol. One lot—in a class by itself—contained only 2 per cent of isopropyl alcohol, although the label on the shipping case claimed "70 per cent alcohol."

Isopropyl alcohol, relatively a newcomer among the commercial alcohols, is a by-product of the petroleum refining industry. It is known that this alcohol, when taken into the human system, is destroyed and eliminated very slowly; that is, its harmful effects are relatively persistent. For this reason, its use in foods such as flavoring extracts has been vigorously opposed by the Food and Drug Administration, and its use in drugs for internal use is subject to like attack.

W. G. Campbell, Chief of the Administration, stated today, however, that the recent actions do not depend on proof of harmful effects from isopropyl alcohol. "It is not known whether harm does result from its external use," he said, "but federal courts have repeatedly stated that one of the purposes of the Food and Drugs Act is to enable purchasers to buy foods and drugs for what they really are."

It was pointed out that it is misleading to label an isopropyl alcohol mixture in such a way that the package is an imitation of the well-recognized rub made up almost entirely of ethyl alcohol. This mislabeling is, therefore, in violation of the Food and Drugs Act. The purchaser does not receive the article he is led to expect. In some of the recent cases, the word "isopropyl" or the chemical symbols C_3H_8OH appeared in small letters on the labels, but the Administration does not consider either of these additions sufficient to inform the purchaser of the true nature of the article, especially in view of the prominent designation "alcohol" or equivalent expressions on the label. The Administration has taken the position that the labels of isopropyl alcohol preparations intended for external bodily use should show the exact nature of the article, without any accompanying words or trade names which tend to confuse the article with ethyl alcohol.

LETTERS

Concerning extended activities in federal chronic illness survey.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH
SACRAMENTO
February 4, 1936.

To the Editor:—Enclosed please find copy of letter which I have just received from the Surgeon-General, in reference to extending activities under a chronic illness survey* now being conducted in this State.

Very truly yours,
WALTER M. DICKIE, M. D.,
Director of Public Health.

* * *

TREASURY DEPARTMENT
PUBLIC HEALTH SERVICE
WASHINGTON
January 28, 1936.

Dr. Walter M. Dickie,
Director of Public Health,
Sacramento, California.

My dear Doctor Dickie:

As proposed in the original plans for the health inventory, now being conducted in several community areas within your jurisdiction, arrangements have been completed to institute a study of the medical facilities available for health and clinic service. Additional information will be obtained on first, the out-patient department of hospitals, dispensaries, and other clinics; and, second, additional data will be gathered of local health agencies or units of government, and of other organized medical facilities which operate a clinic service. The schedules are designed to obtain data on budgeted expenditures, personnel by type, and to provide an expression of the volume of the medical services provided.

These studies will be conducted by the local Health Survey organizations as at present constituted. A medical officer of the U. S. Public Health Service has been assigned to lend advisory technical supervision for the conduct of the work. A representative of the Facilities Survey organization will confer with you at the earliest favorable opportunity, and solicit information pertinent to the work. It is contemplated that the territorial unit selected for the survey will be extended to include those health or clinic service agencies which operate within the area of a major political subdivision, such as a county or other major political division.

Appreciation is expressed in advance for your assistance in obtaining the information on a comparable basis, which is necessary to the successful conduct of the survey.

Respectfully,
H. S. CUMMING,
Surgeon-General.

Concerning a California public health training school: In affiliation with the United States Public Health Service.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH
SACRAMENTO
February 4, 1936.

George H. Kress, M. D.,
Member, State Board of Public Health,
Los Angeles, California.

Dear Doctor Kress:

Enclosed please find copy of my reply to Doctor Pomeroy, under date of February 4, on the subject of the Social Security Act.

Very truly yours,
WALTER M. DICKIE, M. D.,
Director of Public Health.

* * *

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH
SACRAMENTO
February 4, 1936.

J. L. Pomeroy, M. D.,
County Health Officer,
Hall of Justice,
Los Angeles, California.

Dear Doctor Pomeroy:

I desire to acknowledge your letter of January 24, the subject of which is the Social Security Act. I have not replied to your letter before this, as I have been trying to get a little more data.

It is my understanding that there is to be a school of public health established on the Pacific Coast, out of funds set aside under the Social Security Act, to be administered by the United States Public Health Service. The only function of this Department is to act as the field agent of the Public Health Service in administering funds for scholarships and maintenance of the students.

This school of public health will have to serve some ten western states in the education of their health personnel. There is a movement on foot to request that the school be located in the Bay area, under the auspices of the University of California and Stanford University. I understand that the State of Washington is also making a bid.

I would refer you to Dr. Karl F. Meyer, Hooper Foundation for Medical Research, for more detailed information as to what is proposed.

Very truly yours,
WALTER M. DICKIE, M. D.,
Director of Public Health.

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* See also February issue of CALIFORNIA AND WESTERN MEDICINE, page 138.

Concerning United States Public Health Service activities on veneral disease information.

To the Editor:—It is desired to bring to your attention the monthly abstract journal of the Public Health Service, known as *Venereal Disease Information.* This small publication is prepared for the practicing physicians of the United States because it is absolutely necessary to gain their coöperation and assistance in the public health program now being waged against these diseases.

Your coöperation in again calling the attention of your readers to this publication will be greatly appreciated. The descriptive material in the accompanying leaflet offers a satisfactory form for presentation.

By direction of the Surgeon-General.

Respectfully,
R. A. Vonderlehr,
Assistant Surgeon-General,
Division of Venereal Diseases.

* * *

Venereal Disease Information is a monthly publication prepared by the United States Public Health Service for distribution among the medical profession throughout the United States. It measures approximately 6 by 9 inches and ranges in size from twenty-five to seventy-five pages.

It is the purpose of the Public Health Service in issuing this publication to provide in condensed form a monthly summary of the scientific developments in the diagnosis, treatment, and control of syphilis and gonorrhea. More than three hundred American and foreign journals are reviewed for this work. Abstracts are made of articles describing laboratory, pathologic, and clinical work in the field of venereal diseases.

The most important literature on every phase of the subject is presented in the form of brief abstracts that are easily read. An index for the year is published with the December issue.

During the past year thousands of physicians found this publication useful in enabling them to keep abreast with developments in venereal disease work.

The cost of this publication is only fifty cents per annum, payable in advance to the Superintendent of Documents, Government Printing Office, Washington, D. C. It is desired to remind the reader that this nominal charge represents only a very small portion of the total expense of preparation, the journal being a contribution of the Public Health Service in its program with state and local health departments directed against the venereal diseases. If you wish to secure the valuable service which this monthly magazine provides, send fifty cents to the Superintendent of Documents, Government Printing Office, Washington, D. C.

Concerning Court of Appeal decision on Kern County Hospital case: Objection raised to extending county hospital facilities to county employees.*

Association of California Hospitals
Hotel Whitcomb
San Francisco, California
February 7, 1936.

John V. Barrow, M. D.,
1110 Wilshire Medical Building,
Los Angeles, California.

Dear Doctor Barrow:

As chief of staff of the Los Angeles County Hospital you will be interested in the decision handed down by the Fourth District Court of Appeal in the Kern County case. I am attaching hereto a copy of their order, which is self-explanatory.

I believe this decision puts on a stronger basis the fact that the county hospitals will be limited to indigent sick. However, in this decision you will notice one paragraph, under (*h*), "A county employee injured in the course of his employment by the county when hospitalization is reasonably required to cure and relieve the effects of such injury," we as private hospitals are strongly opposed to county employees being hospitalized at a county institution for injuries arising during employment coming under compensation insurance. I do not believe the Los Angeles County employees are being hospitalized at the County Hospital, but I merely call your attention to this part of the ruling in case the question is brought up with reference to our county institution. I believe we should oppose such a move, which is against the best interests of taxpayers, doctors, and private hospitals.

From time to time emergency cases coming under insurance are hospitalized at the County Hospital, due to the fact that they cannot refuse an emergency. However, in the past I know some insurance companies have worked this as a racket, seeing that the patient is sent to the County Hospital and after they get him entered, pleaded responsibility, but ask that the patient be left there and they will assume the charge. In these cases it is very unjust to the taxpayers to merely charge the per diem rate. Most of the cases require extensive x-rays, fracture appliances, etc. My opinion is that the Board of Supervisors, through the hospital, should set a high rate for such emergencies, which would immediately discourage such patients being shifted to the county institution.

I trust that you will go over this court order and give me your views.

Very truly yours,
Association of California Hospitals.
By R. E. Heerman, President.

Concerning pathologic and radiologic services, legally considered—may they be divided into professional and technical fields?*

State of California
Department of Public Health
Sacramento
San Francisco,
February 5, 1936

George H. Kress, M. D.,
Member, State Board of Public Health,
Los Angeles, California.

Dear Doctor Kress:

Enclosed please find copy of opinion from the Attorney-General's office, which will probably be of interest to you.

Very truly yours,
Walter M. Dickie, M. D.,
Director of Public Health.
313 State Building.

* * *

State of California
Legal Department
San Francisco,
February 5, 1936.

Walter M. Dickie, M. D.,
Director of Public Health,
313 State Building,
San Francisco, California.

Dear Sir:

In your communication of November 14, 1935, you call attention to the opinion of this office, No. 10171, which answered certain questions asked by your Board relative to the interpretation of Chapter 386, Statutes of 1935.

The chapter referred to deals with the supplying of hospital services by corporations organized for nonprofit purposes.

In reply to your questions whether corporations might contract to furnish pathologic and radiologic services to individuals and whether pathology and radiology could be divided into professional and technical fields, this office replied that pathologic and radiologic services might be furnished by corporations where such services did not constitute the practice of medicine, and that pathology and radiology could be divided into professional and technical fields.

You now ask, "Where in pathology and radiology are the dividing lines between the professional and technical fields?"

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*See also, pages 146 and 189.

*See also editorial comment (p. 148).

In reply I would state that the law of this state does not recognize or deal with special subjects or branches of the field of medicine. The practice of medicine generally, rather than the practice of any specific branch thereof, except by persons licensed to do so, is prohibited (Sections 8 and 17, Medical Practice Act).

The dividing line between a professional and a technical act is at the point where a person does that thing or those things which constitute the practice of medicine, to wit, practices or attempts to practice, or advertises or holds himself out as practicing, any system or mode of treating the sick or afflicted in this State, or diagnoses, treats, operates for, or prescribes for any ailment, blemish, deformity, disease, disfigurement, disorder, injury, or other mental or physical condition of any person.

While there is unquestionably work for a technician and work of a purely professional nature in the medical as well as in any other professional field, it would seem to be a question of fact in each instance whether any particular act or conduct violates the provisions of the law. It occurs to us that the question of whether a particular act or course of conduct constitutes the practice of medicine is one about which scientific and even medical men might differ. If this be so, such difference of opinion might well be taken into account by a court when determining whether such act or conduct constitutes the practice of medicine as a matter of law. Such determination by the court will, however, be made upon a consideration of all the facts adduced and of the law applicable thereto. It should not be attempted, as indeed it cannot be made, by this office on a question of law alone, and without having before us a concrete statement of facts.

Very truly yours,

U. S. Webb, *Attorney-General.*
By Lionel Browne, Deputy.

Concerning article on liver suppuration.

To the Editor:—The California and Western Medicine for January, 1936, on page 44, published, under Clinical Notes, a summary on liver suppuration. The following may be of interest:

On December 21, 1935, a 47-year-old salesman was seen by the author of that screed with Edward L. Laughlin, M. D., of Los Angeles. The patient became acutely ill three days prior with fever, fast pulse, and a distended abdomen. He had had some sugar in the urine, off and on, for several years.

Examination found mild irrationality; albumen and granular casts in the urine; blood pressure, 120/80; blood sugar, 104; white blood cells, 19,000; polymorphonuclears, 88 per cent; hemoglobin, 70 per cent; and bowels loose.

Diagnosis: Acute exacerbation of a chronic parenchymatous nephritis. Prognosis: Gravis. Treatment: Supportive.

The autopsy of January 28, 1936, found a multilocular abscess of the right lobe of the liver, which contained over 1,000 cubic centimeters of an odorless, milky colored, slightly greenish-tinged pus. No primary focus was discovered.

Here, then, was massive liver suppuration, clinically unsuspected, and its etiology pathologically undetected!

Submissively
John W. Shuman, M. D.

Concerning requests for copies of proceedings in disciplinary actions: Under what conditions to be given.

Re: Appeal of Dr. Joseph Smith, and others, Kern County Society.

February 7, 1936.

Dear Doctor Warnshuis:

Referring to recent telephone conversations with you and with Messrs. Borton & Petrini, attorneys for the appellant doctors, in regard to Mr. Petrini's request for a copy of the record of proceedings taken by the Kern County Society resulting in the suspension of the appellant doctors, I suggested that a meeting of the Executive Committee be held to pass on this request.

I informed Mr. Petrini that a meeting would be held, and as the hearing is set for April 11, there would be ample time to hold such meeting before that date.

Meanwhile, we have been looking into the matter and have prepared a memorandum opinion thereof, copy of which I enclose.

Very truly yours,
Hartley F. Peart.

P. S.: I am sending carbon copies to the Association officers for their information.

* * *

February 7, 1936.

Dr. F. C. Warnshuis,
Secretary, California Medical Association,
450 Sutter Street,
San Francisco, California.

Re: Appeal of Kern County Members. Right of Appellant Doctors to Copy of Record of Proceedings Before County Society.

Dear Doctor:

To determine whether or not a member of a county society who has appealed to the Council of the California Medical Association in accordance with Section 4, Chapter II, of the by-laws of the California Medical Association, is entitled to a copy of the record of the proceedings had in the county society, it is necessary to consider, first, the by-laws of the California Medical Association, and second, if the by-laws do not solve the problem, those court decisions which are applicable.

1. CALIFORNIA MEDICAL ASSOCIATION BY-LAWS.

The only by-laws of the California Medical Association which appear to have any bearing upon the above-stated question are Sections 4 and 5 of Chapter II. Section 4 merely authorizes a member who may feel aggrieved by the action of his component county society in censuring, suspending or expelling him to appeal to the Council. Section 4 also requires (*a*) that the appeal be in writing, (*b*) that it be filed in the office of the secretary-treasurer, and (*c*) that appeals shall be heard by the Council only after reasonable notice in writing of the time and place of the hearing. Section 5 relates to the procedure to be followed before the hearing and at the hearing. It is very general in its terms and does not refer to the record of the proceedings in the county society either directly or by implication.

It is, therefore, necessary to conclude that the by-laws of the California Medical Association do not provide an answer to the question under consideration.

2. APPLICABLE COURT DECISIONS.

The viewpoint of the law with respect to this question may best be stated by quoting a short paragraph from a New York case. In *Mead's Case,* 35 N. Y. S. at 218, 8 App. Div. at 596, the Court held:

> "The relator was entitled to a fair trial, after due notice, before an impartial tribunal, and as the method of procedure was not regulated by the laws of the Association *it should be analogous to that observed in ordinary judicial proceedings,* so far, at least, to promote substantial justice."

The above quoted rule of law is also followed in *Reid v. Medical Society of Oneida County,* 156 N. Y. S. 780.

With respect to the instant question, the by-laws of the California Medical Association do not regulate the procedure to be followed with respect to copies of the record. Therefore, in order to comply with the judicial requirements of a "fair trial" it is necessary to observe, in so far as is possible, the proceedings in ordinary cases at law. In California when a party to an action in the Superior Court takes an appeal either to the District Court of Appeal or to the Supreme Court, the court reporter transcribes into typewriting from his shorthand notes all of the testimony adduced at the trial and the county clerk prepares a copy of all the pleadings filed in the case. The party who appeals is required to pay the court reporter's fee and the county clerk's fee for transcribing and copying the original. If the party appealing desires a copy for his own use, it is necessary for him to pay the cost of making an additional copy. Also, if the opposite party wishes a copy, it is necessary for him to pay the court reporter's fee and the county clerk's fee for making an additional copy. If one of the parties or if both of the parties do not obtain copies from the court reporter and the county clerk, then in that event, either party is entitled, *as a matter of right*, to examine the original which is filed with the clerk of the District Court of Appeal or Supreme Court, as the case may be, in the clerk's office. Also, if either of the parties so desire, they are entitled to copy from the original record on file with the clerk at their own expense, the only requirement being that the record be not removed from the clerk's office.

Applying the foregoing rules of judicial procedure to the instant question, it is my opinion that a member of a component county society who appeals to the Council is entitled, as a matter of right, to a copy of the record of the proceedings had before the county society if he defrays the expense of transcribing the copy, and, second, that in any event, such a member is entitled to examine for as long a period as he desires the original record of proceedings filed with the secretary of the Association, provided only that the record be not removed from the secretary's office.

Very truly yours,

Hartley F. Peart.

Concerning ownership of x-ray plates. Important decision by the Michigan Supreme Court.

February 25, 1936.

To the Editor:—I enclose herewith excerpt from decision in the case of McGarry v. Mercier Company, decided last September by the Michigan Supreme Court.

So far as I have noted, this decision seems to have escaped the editors of the American Medical Association. I am not sure of this, but I do not recall seeing it. As the Court itself says, "This is a case of first impression."

Very truly yours,

Hartley F. Peart.

* * *

X-RAY DECISION

Burton G. McGarry v. J. A. Mercier Company, Appt. Michigan Supreme Court. September 9, 1935. 100 A. L. R. 549, 262 N. W. 296.

"Plaintiff was fully justified in refusing to surrender possession of the x-ray negatives. In the absence of agreement to the contrary, such negatives are the property of the physician or surgeon who has made them incident to treating a patient. It is a matter of common knowledge that x-ray negatives are practically meaningless to the ordinary layman. But their retention by the physician or surgeon constitutes an important part of his clinical record in the particular case, and in the aggregate these negatives may embody and preserve much of value incident to a physician's or surgeon's experience. They are as much a part of the history of the case as any other case record made by a physician or surgeon. In a sense they differ little if at all from microscopic slides of tissue made in the course of diagnosis or treating a patient, but it would hardly be claimed that such slides were the property of the patient. Also, in the event of a malpractice suit against a physician or surgeon, the x-ray negatives which he has caused to be taken and preserved incident to treating the patient might often constitute the unimpeachable evidence which would fully justify the treatment of which the patient was complaining. In the absence of an agreement to the contrary, there is very good reason for holding that x-rays are the property of the physician or surgeon rather than of the patient or party who employed such physician or surgeon, notwithstanding the cost of taking the x-rays was charged to the patient or to the one who engaged the physician or surgeon as a part of the professional service rendered. Careful research indicates that the question here presented is one of first impression. While not fully to the point, it has been indicated by court decisions that the negative of an ordinary photograph, in the absence of an agreement otherwise, belongs to the operating photographer, though his use thereof may be restricted. *Corliss* v. *E. W. Walker Co.* (C. C.), 64 F. 280, 31 L. R. A. 283; *Pollard* v. *Photographic Company,* 40 Ch. Div. 345."

Concerning a recent Appellate Court of California decision. Chiropractor uses a diathermy electrode. Judgment for damages sustained.

To the Editor:—We enclose herewith "California Appellate Decisions," August 13, 1935, Volume 82, No. 3142, wherein on page 476 you will find the decision in the case of Ellinwood v. McCoy sustaining a malpractice verdict of $7,500 against Frank J. McCoy, licensed drugless practitioner, who has run a syndicated health column in the papers for several years. Said decision is interesting because it mentions a quite prevalent procedure among chiropractors of introducing into the male urethra a diathermy electrode in the treatment of gonorrhea, with disastrous results.

It occurred to the undersigned that the publication of the enclosed decision would be of great interest to readers of California and Western Medicine.

Very truly yours,

C. B. Pinkham, M. D.,
Secretary-Treasurer, State Board of Medical Examiners.

420 State Office Building,
Sacramento.

* * *

Civil No. 9171. Second Appellate District, Division One.
August 2, 1935

Herbert M. Ellinwood, Plaintiff and Respondent, v. Frank J. McCoy and James E. Anderson, Defendants; Frank J. McCoy, Appellant.

[1] *Chiropractors — Malpractice — Care — Evidence.*—A practitioner is required to use the same degree of care, diligence and skill in the treatment of his patients as is possessed and used by prudent, skillful and careful practitioners of the same school practicing in the vicinity; and in this action for damages for the malpractice of a drugless practitioner in his treatment of plaintiff for gonorrhea, where it appeared that plaintiff was severely burned and injured as a result of ultra-violet ray and cold quartz treatment administered by defendant practitioner which subsequently necessitated an abdominal operation to enable plaintiff to urinate, it could not be said that the practitioner exercised the necessary care and skill.

[2] *Id.—Witnesses—Experts—Physicians and Surgeons.* In such action, where the alleged malpractice was based upon general charges of negligence relating largely to matter of almost common observation within the experience of every physician and surgeon, physicians were qualified to testify as experts in giving their opinion as to whether the treatment of plaintiff by a drugless practitioner was proper.

[3] *Id.—Instructions—Care.*—In such action, while an instruction upon the subject of negligence omitted a reference to the standard of care by which it was to be judged, it was not so prejudicial as to require a reversal, where other instructions correctly stated the standard of care required.

[4] *Id.—Instructions—Physicians and Surgeons—Care.*—In such action, there was no error in an instruction concerning the duty of one representing himself as a specialist, where there was evidence that defendant so represented himself and if the jury believed the evidence to require of him the standard of care set forth in the instruction.

Appeal by defendant from a judgment of the Superior Court of Los Angeles County, Arthur Keetch, Judge, in an action for damages of malpractice. Affirmed.

For Appellant—Barry & Boehler; Warren Lee Kinder, of Counsel.

For Respondent—Edwards & Taylor, Harvey D. Taylor.

In an action for malpractice, a jury returned a verdict for $7,500 in favor of the respondent and against appellant, Dr. Frank J. McCoy. The appeal from the judgment entered thereon presents principally the question whether or not the evidence is sufficient to sustain the verdict, although other points on appeal are urged.

The evidence shows that on December 14 respondent consulted Doctor McCoy, licensed to practice as a drugless practitioner, for treatment of gonorrhea. On the occasion of this first visit, Doctor McCoy inserted an ultra violet-ray orificial applicator, also called a cold quartz rod, into respondent's urethra and left it there with electric current turned on for a period of seconds. Appellant also placed a diathermy electrode in respondent's rectum, with a metal plate near the small of the back. Electrical current was then applied, and the electrode heated to 102 degrees Fahrenheit. The treatment of the urethra with the cold quartz rod was given on four later days, the last on December 20, by Dr. James E. Anderson upon the direction of appellant. Diathermy treatments were also given by Doctor Anderson during this period. Doctor Anderson, the record shows, was one of a number of chiropractors working for appellant in his offices.

On the night of December 20 respondent consulted another physician, who found him in a condition where it was impossible for him to urinate. Respondent was taken to a hospital, where for twelve hours various means were used in an effort to open up the urethra so that respondent could urinate. When there was such an accumulation of urine that two surgeons felt that respondent was in great danger, an abdominal operation was performed and the bladder drained by means of a tube. This tube was kept connected through the abdominal incision until the urethra healed sufficiently to allow normal flow of urine through it, which took about three weeks.

Doctor Dowey, one of the surgeons who operated upon plaintiff, testified that respondent before the operation was suffering from acute urethritis of apparent traumatic origin from mechanical instrumentation; thermal injury of ultra-violet origin; and acute cystitis, both bacterial and traumatic. He also stated that after the operation a good deal of tissue within the urethra sloughed out in pieces from the size of a small flake to perhaps one-half to three-quarters of an inch across. This indicated to him, he explained, that the tissue within the urethra and a portion of the bladder had been so traumatized or injured that it died and sloughed off, and that respondent had suffered third degree burns of both the urethra and bladder. In further explanation the doctor stated that "the phenomena which presented themselves clinically in his case were not characteristic of a noncomplicated gonorrheal urethritis. They were characteristic of a case which had been traumatized through brutal instrumentation."

Doctor Willis, the other attending surgeon, testified that during the operation an examination of the bladder showed "the so-called trigon area—a triangle-shaped space between the urethral orifice and the bladder neck—was markedly inflamed and engorged" with second degree burns; and that after respondent urinated normally the urine contained a heavy deposit of necrotic tissue. He also gave as his opinion "that the retention of urine was due to photothermic destruction of the lining membrane and inflammation of the cavernous urethral structure from prolonged application of the ultra-violet light."

In addition to these witnesses, respondent called Doctor McKinney, a specialist in urology, who, in response to a hypothetical question embodying the treatment of the respondent by the appellant and Doctor Anderson, expressed the opinion that respondent was too vigorously treated and burned with the diathermy or the violet-ray.

[1] From the testimony given by Doctor Dowey and Doctor Willis of the condition of respondent's penis after the treatment given by appellant, the jury was thoroughly justified in finding that respondent had suffered severe injury, and their description of what they found during the operation is further evidence of even more convincing character. The duty which the appellant owed to his patient has been thus stated. "A practitioner is, however, required by law to use the same degree of care, diligence and skill in the treatment of his patients as is possessed and used by prudent, skillful and careful practitioners of the same school practicing in the vicinity." (*Howe* v. *McCoy*, 113 Cal. App. 468, 470. See, also, *Hesler* v. *California Hospital Co.*, 178 Cal. 764.) If the condition of the respondent was, as testified to by Doctor Dowey, a condition which in itself indicated that this was "a case which had been traumatized through brutal instrumentation," it can hardly be said that the appellant used the care and skill required by the law. And the jury was warranted in finding accordingly if they believed the testimony.

[2] Concerning appellant's claim that the testimony of the physicians called by the respondent should have been excluded because they are not drugless practitioners, the following is pertinent and determinative of the point: "We might add that we are cited to no rule obtaining in this jurisdiction and know of none which would preclude a physician trained in one medical school from testifying in a proper case as to the treatment rendered by a physician or surgeon trained in a different school. Such a rule might be promulgated where charges of negligence in a malpractice case are directed toward some special course of treatment to be tested by the general doctrine of a particular school, but it is not applicable to a case of this character where the alleged malpractice is based upon general charges of negligence relating largely to matters of almost common observation within the experience of every physician and surgeon." (*Hutter* v. *Hommel*, 213 Cal. 677, 681.)

[3] Appellant also complains of the following instruction: "I instruct you that negligence on the part of a drugless practitioner or chiropractor consists in his doing something which he should not have done, or in omitting something which he should have done." This instruction omits the very necessary element of the standard of care by which the act of the practitioner is to be judged. However, in other instructions the court fully presented the law to the effect that there are different recognized methods of treatment for gonorrhea; that the appellant was not required to use that method recognized or approved by practitioners of medicine or surgery; that he was only required to possess and use ordinary skill; and that no recovery could be had against him, regardless of the outcome of his treatment, unless he failed to have or use the ordinary skill of like practitioners in the same locality. In a somewhat similar situation where the instructions given in a malpractice case were under consideration, the Supreme Court said: "When the instruction complained of here is read in connection with and in the light of the other instructions in the case, of which the defendant does not complain, it cannot be said that the instruction, though manifestly erroneous, was prejudicial to a degree which would require a reversal of this case." (*Hall* v. *Steele*, 193 Cal. 602, 609.) The same rule applies here.

[4] Also, there was no error in giving to the jury instructions concerning the duty of one holding himself out as a specialist. There was evidence to the effect that the appellant represented himself to be a specialist, and if the jury believed this evidence, they were entitled to judge his conduct by the standard of care stated in the instruction.

The other points raised by the appellant are disposed of by what has been heretofore stated.

The judgment is affirmed.

Edmonds, J. pro tem.

We concur:
Conrey, P. J.
Houser, J.

SPECIAL ARTICLES

PURE FOOD AND DRUGS

Activities of the Bureau of Food and Drugs of the California State Board of Health: Report for the Month of January, 1936

The administrative work of the California State Board of Health is carried on through departments known as bureaus, each with a chief (who reports to the Board of Health through the director), and each chief having a clerical, inspecting, and other personnel working under him and for whose service he is responsible.

Members of the medical profession who are in private practice have only limited opportunity to know how such state, county, and municipal health bureaus carry on their work and how numerous are their activities. On that account excerpts from the January report of the Bureau of Food and Drugs of the California State Board of Health are printed below:

Los Angeles, California,
703 State Building,
February 10, 1936.

To: Dr. W. M. Dickie, Director of California State Board of Health.

From: Milton P. Duffy, Chief of Bureau of Food and Drugs.

Subject: Activities of the Bureau of Food and Drug and Report and Inspections for January, 1936.

* * *

The Bureau of Food and Drug Inspections is charged with the enforcement of the following laws:

1. Pure Foods Act.
2. Pure Drugs Act.
3. Sanitary Bakery Law.
4. Imported Egg Law.
5. Food Sanitation Act.
6. Cold Storage Act.

I. Report for Southern California District

Territory included: Los Angeles, San Diego, Santa Barbara, Riverside, Orange, and San Bernardino counties.

Inspectors: Dick Addison, H. Seymour Jones, John R. Ronan, J. B. Donovan, W. G. Behrns, P. B. Shliff, A. J. Gazzola, and E. F. Unfred.

Total number of inspections made, 881.

Total number of official samples secured, 28.

Total number of unofficial samples secured, 7.

(a) Pure Foods Act

Antipasto.—During the month of December, following suspected cases of poisoning from antipasto in San Francisco, all suspected lots of antipasto were quarantined. On shipments being imported this department worked with the United States Food and Drug Administration. During the month of January three lots were found to be satisfactory, and upon receipt of information from the Federal Food and Drug Administration these lots were released. Suspected lots still remain in quarantine pending receipt of information on them. During the survey all retail, wholesale, and suspected places where this material was possibly to be found were checked and all suspected lots quarantined to prevent further trouble. All cans which showed evidence of spoilage have been removed from sale.

Beverages.—Activity was continued in the inspection of orange beverages. The federal ruling prohibiting the use of color in orange by-products shows all firms using color to give the orange beverages an appearance of greater orange juice content. In checking manufacturers of this type of product, a lot of canned orange juice was found which was unfit for use in that the cans had swelled, and from the investigation it was found the contents were unfit for use as a beverage.

Canned Goods.—During the month of January a large lot of canned peas were released to the Federal Government for seizure. This lot of peas had been quarantined because of flat sours. The shipment being interstate, the Federal Government will proceed with the seizure.

A lot of dog food was destroyed due to the fact that it was found to be unfit for use.

Meat.—A survey of retail meat dealers in Riverside was made at the request of the meat inspector in the territory. Samples were taken from four markets and sent to the laboratory for chemical analysis. Evidence that preservatives were used in the meat was found.

(b) Pure Drugs Act

Drug Labels.—Seventy-five drug inspections were made during the month. These included patent medicines and various drug products. In the majority of cases the literature is entirely out of line. Specimens of the literature and official samples of the products for analysis were taken. A number of new companies have come into this territory and are placing remedies on the market with literature that greatly misleads the layman into false beliefs. Fear of prosecution has corrected many labels; however, the literature used in connection with the product is the offending part of the advertising.

Numerous interviews were had with manufacturers of drug products regarding the labeling of their products. Copies of proposed labels and advertising material were criticized.

Imported Egg Act.—The use of imported egg products continues in rather large quantities in that in the past month forty-six cases of 200 pounds each were inspected and certificates affixed to the cases inspected.

In the case of a noodle manufacturer investigated during the month of December, a complaint was issued by the District Attorney of San Diego County and the trial of this case will be held in February. The defendants entered a plea of not guilty to violating the provisions of the Act.

Liquor Inspections. — Considerable time was spent in organizing and setting up the machinery for the proper enforcement of liquor standards. The last legislature appropriated funds to this department for enforcement of standards and the proper labeling of liquor. Interviews with members of the Attorney-General's office, local District Attorney's office, and city attorneys were had with reference to the enforcement of liquor standards and inspection.

Members of the State Board of Equalization were interviewed in this connection.

As a result a procedure was established and numerous inspections of "On Sale" establishments were made. It was noted that Chapter 382 of the Penal Code is applicable in connection with the Pure Food Act. Violations include the sale of substitutions for absinthe, champagne, sparkling wines, fruit brandies, Scotch whiskies, and beers. It was found that in practically every "On Sale" establishment some substitution was noted. Copies of the menus were obtained, and in every case the owner or some member of the establishment in authority was warned regarding the violation. During each inspection attention was paid to the possible refilling of containers.

The prosecution of ——— was carefully planned and all contingencies that might arise at the trial were prepared for. Numerous interviews with the District Attorney's office precluded failure on our part at the trial. The advisability of this procedure was demonstrated by the fact that the jury found ——— guilty on all four counts on which he was charged with violation. The procedure was further demonstrated as valuable by the Judge's action in affixing the penalty at six months in the county jail and $500 fine on each of four counts, a total of six months in the county jail and $2,000 fine (jail sentences running concurrently). It is certain this case had a real value in that the results of the trial were soon known to practically all wineries throughout the state.

An investigation of a brewery that was following the practice of using cardboard cases bearing the names of other brewers resulted in this procedure being discontinued.

II. Report for Northern California District

Territory includes: San Francisco, San Mateo, Santa Clara, Santa Cruz, Alameda, Contra Costa, Solano, Napa, Sonoma, San Joaquin, and Sacramento counties.

Inspectors: H. E. Lorenzini, H. C. Peters, J. R. Dieffenbacher, Harold F. Riede, and C. B. Heizer.

Total number of inspections made, 527.

Total number of official samples secured, 7.

Total number of unofficial samples secured, 28.

(a) Pure Foods Act

Antipasto Survey.—During the recent antipasto survey resulting from the deaths attributed to this product in San Francisco, all suspected material had been quarantined.

During the month of January considerable time was spent in clearing up the quarantined stocks of antipasto. Stores and warehouses where this material was held were inspected and all cases were inspected. All cans showing visible defects were destroyed. The destroyed material consisted of swells, flippers, and rusty cans. The balance of the quarantined lots, after proving satisfactory from laboratory examination, were released with the understanding that in the future any defective cans are to be returned to the wholesaler. All stocks with the exception of a few lots in quarantine in the Monterey Peninsula area have been either released or destroyed.

Glass Container Survey.—Numerous drug stores, liquor establishments and wineries were investigated. Individual reports are on file regarding each establishment investigated. In every inspection where containers are used, the kind and condition of containers used was ascertained.

Liquor Survey.—Routine inspection details were formulated and many "On Sale" liquor inspections were made. Violations were noted, particularly in the use of carbonated wines in champagne drinks, the selling of herbsaint, absentine, etc., for absinthe, and the general use of blended and spirit whiskies for bar and mixed drinks. Further violations include the use of a domestic blend of Scotch for Scotch whiskey, and the serving of cordials for fruit brandies. One instance of mislabeled beer was found.

In checking "Off Sale" liquor establishments there were numerous violations noted. In the case of barrels it was noted that many wineries leave off the declaration of alcohol content, or the date of delivery. In general, it is noted that the requirements of labeling have not been adhered to. It was also noted that in the case of bottled wines improper declaration of alcoholic contents was in many cases evident.

Routine inspections of wineries were made. Stocks on hand were checked, and labels to be used on products were checked. Constant effort is being made to clear out records of wine being held in quarantine. In one case court action was taken, and the owner of the wine was found not guilty. The wine in question was, by order of the court, destroyed.

As a result of legislation passed by last year's legislature a plan to inspect rectifiers and manufacturers was started. Many inspections of rectifiers were made and their products and labels were checked.

Imported Egg Products.—Several inspections were made relative to enforcement of the law governing imported egg products.

Miscellaneous Food Inspections.—Many food inspections in markets, places manufacturing extracts, bakeries, and stores handling food products, were made. Two markets were found using sulphur dioxid as a preservative in hamburger.

(b) Pure Drug Act

Patent Medicines.—Several inspections involving patent medicine manufacturers were made. Drug-store stocks were checked in connection with the container survey. It was noted drug stores in this area used only new containers.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. IX, No. 3, March, 1911

From Some Editorial Notes:

Advertising Agencies.—Some people seem to have a peculiar idea of their real place in the world of work; they seem to think it is their duty or their right or their prerogative to run other people's affairs for them. Thus the life insurance companies, a few years ago, considered it their duty or their right to fix the fees which physicians should charge for making examinations for life insurance. . . . A number of our advertisers have recommended this *Journal* to other advertisers; a large number of our readers who have responded to our request to consider this question of advertising and have read the editorial notes on the subject from time to time, make it a rule to look through the advertising pages, and find that it is distinctly to their advantage to do so. Recently an advertiser wrote us that he had made a number of excellent sales from his advertisement in one issue, and stated that three or four people had voluntarily referred to an editorial on the advertising question. "It pays to advertise"; yes, and it pays to read advertisements. Do it; read those in your own *Journal.*

* * *

Progress or Carelessness.—Is medicine making such rapid advances that an opinion which is correct today will be incorrect six months hence? Are we advancing so rapidly in all matters pertaining to general medicine that a paper written this month will be obsolete a year from now? . . . It is well to be a little "slow in the head"; if you are right today, you will be just as right a year from now; if science has advanced in the year beyond the world's knowledge of today, you need not be ashamed of it.

* * *

Newspaper Influence.—*Collier's Weekly* has at last begun the publication of a series of articles by Will Irwin, on the newspapers of the United States. The foreshadowing of the first article indicates that the series will be much read and discussed. . . .

* * *

Causes of Death.—From the Department of Commerce and Labor, Bureau of the Census, comes a little vest-pocket pamphlet with the title "Physicians' Pocket Reference to the International List of Causes of Death." (Comment for thought: There is nothing pertaining to medicine or public health that comes to medical men from a medical or public health department of the national government. Matters of medical or public health interest percolate through the Department of Agriculture or the Department of Commerce and Labor or the Treasury Department. Everything is worth something commercially, except life and health!) . . .

* * *

Remarkable Suit Won.—The suit against Dr. Rae Smith of Los Angeles for $50,000 for malpractice was recently fought out in courts, the verdict being for the defendant, Doctor Smith, the jury taking about ten minutes in coming to their decision. . . . This is the first suit to be tried in court and defended by the Medical Society of the State of California under our medical defense plan, and the outcome is gratifying in the extreme. The attack upon Doctor Smith, whose treatment was absolutely correct, was exceedingly bitter and it is most unfortunate that the daily papers, which gave considerable space to the melodramatic incidents of the trial, should not have given as much space to the final decision of the jury and the vindication of Doctor Smith.

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† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

(Continued in Front Advertising Section, Page 15)

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"Counties of California yesterday had a clearly stated court authorization to refuse public hospital care to persons able to pay for treatment in private hospitals. A decision clarifying the question controverted in San Francisco and other county hospitals, was handed down by the Fourth District Appellate Court at Fresno. It affirmed an injunction issued by Superior Judge Van Zante to Kern County taxpayers. The injunction in effect restrains Kern supervisors and management of the Kern County Hospital from admitting others than indigents to the hospital. . . ." (San Francisco *Examiner,* February 1, 1936.)

The resignation of Mr. William A. Byrne, who has served in Los Angeles for several years as assistant special agent of the Board of Medical Examiners, was accepted, effective February 12, 1936.

"Warnings were issued today by sheriff's officers against the activities of alleged fake eye specialists who are said to have fleeced several unsuspecting residents of the county during the past few weeks with a time-worn fraud. Officers here are coöperating with authorities in other sections of the Southland in search for the pseudo-doctors. . . " (Riverside *Press,* January 4, 1936). (See Board of Medical Examiners' exhibit, Hall of Medical Science, San Diego Exposition.) (Previous entries, February, 1926, to date.)

"With only the devotion of his many women followers to buoy him, troubles increased yesterday for 'Dr.' Adolph Henri Engelhardt, Long Beach 'divine healer,' under arrest on a charge of criminally attacking a sixteen-year-old girl disciple. Charges of violating the State Medical Practice Act were filed against Engelhardt by William A. Byrne, state medical officer, on the ground that the mystic had no license to practice medicine, chiropractic, or osteopathy. A warrant was served on Engelhardt in the Long Beach jail, where he was being held in lieu of $5,000 bond in the attack charge. . . ." (Los Angeles *Examiner,* January 15, 1936.)

"New discoveries of what are described as falsification of records were made today as three separate investigations got under way into the mysterious circumstances surrounding the death of Ella Mae Clemmons, one-time 'Christ Angel of Chinatown.' One investigation was being pressed by the grand jury, district attorney, and police here; another by the State Board of Chiropractic Examiners; and a third by City Manager C. Ray Fritz of Alameda. . . . Mr. Fritz said his detectives had discovered other discrepancies in the death certificate. The certificate listed Hjalmar E. Groneman, husband of the 'Chinatown Christ Angel,' as the 'informant,' and stated Miss Clemmons had been a resident of Alameda County seven months, whereas she had been in that city only six days. . . . Another investigation was announced by C. Russell Willett, D. C., member, and last year's president of the State Board of Chiropractic Examiners, which has jurisdiction over Mr. Groneman . . ." (San Francisco *News,* January 21, 1936). "Hjalmar Groneman, chiropractor, was formally booked at the city prison yesterday on a charge of manslaughter. He was released on bail of $1,000. . . . The indictment holds Groneman criminally

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† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

(Continued in Front Advertising Section, Page 18)

Food and Water... FOR THE VERY SICK PATIENT

• For the very sick patient, it is literally vital to insure an adequate income of water and of nutriment. Where the patient can be fed by mouth, the problem is ordinarily simple. Where adequate oral administration is impossible, the responsibility rests with the physician to forestall the serious effects attending deficiency of water or food.

• A rational treatment, and one universally used, is the administration of dextrose (d-glucose) solution. This supplies at one time both the all-important water, and food in immediately utilizable form. Dextrose provides energy, decreases tissue damage by sparing protein, and prevents acidosis from incomplete oxidation of fat. Distinct improvement in the general condition of the patient often follows dextrose administration. In acute cases, the measure may be life-saving.

• While rectal, hypodermic, intraperitoneal, and intramuscular administration are used, the intravenous route is the route of choice. Concentration and dose are determined by the individual indications, but considerable latitude is permitted by the innocuous character of the solution. To relieve thirst or dehydration, 5% dextrose in distilled water is employed. Where nutriment is desired, the 10% solution is preferable, each liter supplying some 400 calories. Since the minimum daily requirement of a 60 Kg. (132 pound) patient at rest is about 1200 calories, 3 to 4 liters of 10% dextrose per day provides an adequate food income, as well as abundant water. In conditions involving lowering of blood chlorides, such as vomiting, intestinal obstruction, or lobar pneumonia, and where repeated injections are necessary, dextrose is preferably employed in physiological sodium chloride, Ringer's, or Hartmann's solution. The usual single dose is 500-1000 cc., administered by gravity flow at the rate of 500-750 cc. per hour, preferably at body temperature. The ten per cent solution should be injected more slowly than the five, in order that the dextrose may be completely utilized and not appear in the urine.

• No harmful reactions are to be apprehended from the injection of properly prepared and administered dextrose solutions, excepting a possible reaction due to individual idiosyncrasy. The chief contraindication to dextrose or other intravenous infusion is cardiac failure, where danger of acute dilatation exists. Even here, if administration be made slowly and cautiously, ill effects may be avoided. A 20 - 25% solution should be used, affording a high calorie value in small volume.

• A real contribution to the field of dextrose therapy is the Baxter Vacoliter, approved by the American College of Surgeons as a container for and dispenser of sterile intravenous solutions. The Vacoliter makes available to the isolated physician as well as to the most modern hospital, solutions which may be administered with complete confidence, by a simple technique, at a low cost. For your convenience, Baxter offers sterile tube and needle sets containing everything necessary for administration by intravenous injection, hypodermoclysis, or continuous venoclysis. Your inquiry is invited.

AVAILABLE IN 1000 CC. AND 500 CC. VACOLITERS

5%, 10%, 20% Dextrose in Distilled Water, or Physiological Sodium Chloride, or Ringer's, or Hartmann's Solution. Eighteen other solutions are offered, including 6% Acacia; 2½%, 7½%, 25% Dextrose; 0.85%, 3%, 5% Sodium Chloride; Ringer's; and Hartmann's.

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St. Mary's Hospital

2200 Hayes Street
SAN FRANCISCO, CALIFORNIA

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Limited Facilities for Part-Pay Treatment

Too Much Reliance on Laboratory Results.—Several years ago, one of the heads of a large American clinic cited an instance of one of the younger clinicians asking for the roentgen examination of the teeth of a patient, without taking the trouble to examine the mouth and verify the fact that the patient had only false teeth. This example was quoted to demonstrate that one is apt to neglect physical examinations in favor of laboratory reports. An article by Charles Fiessinger along the same lines appeared in the June 8 issue of the *Journal des praticiens*. Faure, Sergent, and Vires have recently directed attention to the fact that clinical diagnosis must be aided by laboratory results, but that the latter ought not to replace the former. Some of the examples cited by Fiessinger may appear exaggerated, but there seems to be much truth in them. The presence of albumin in the urine is of much importance only when accompanied by other symptoms, such as hypertension or signs of renal insufficiency such as headache, or of cardiac decompensation such as dyspnea on exertion. Often the albuminuria may be due to disturbances of nutrition in the form of digestive disturbances. As to glycosuria, small quantities of sugar in the urine most commonly are of little significance. A restriction of carbohydrates will correct the condition in the majority of cases. In children, especially, small amounts of sugar in the urine do not justify a diagnosis of diabetes. The urea content of the blood is of value only if it remains high in successive analyses. Numerous persons are seen with a blood urea of from 60 to 100 milligrams per hundred cubic centimeters. If these are treated as nephritic, the urea will return to normal in a month and they will never later show a higher figure. Slight disturbance in liver action is often responsible for this transitory increase in blood urea, according to Noel Fiessinger. In such cases the treatment should be aimed at correction of the liver instead of at the renal disturbance. Acid-fast bacilli, which are thought to be tubercle bacilli, can be found on slides inadequately cleaned or even in ordinary tap water or the rubber tubing used in laboratories. The presence of tubercle bacilli in the sputum does not always signify an active pulmonary lesion. They are found in certain cases of bronchitis and pleurisy in which roentgenography fails to reveal any lesions. André Meyer has recently shown in a study of thirty cases of occult tuberculosis (pulmonary) that recovery occurs rapidly in the majority.

As to hypertension, this is not a menace unless it rises to 280 or 300 millimeters of mercury. Hypertension is a serious condition only because of the underlying renal lesions that so frequently accompany it. Hypertension without such renal changes may exist for many years without resulting in the slightest accident. One often finds marked hypertension in very old persons. An increased diastolic pressure is of far more significance than an increased systolic rise. One must always bear in mind that the former condition may be transitory because of vascular spasm of nervous origin and is frequently observed in men active in business, lasting only a few weeks, and receding after an enforced absence from the strains of daily responsibilities. In women, especially during the menopause, one is apt to find high blood pressure, which responds well to regulation of diet and rest. Diet, according to Fiessinger, is one of the best therapeutic aids, especially in obese individuals and in cases of hypertension. Hypertension is a perfect phobia in many individuals. It is only a defensive reaction against interference with peripheral circulation, whether the latter is due to vascular spasm, to arteritis or to a renal lesion. The most important effect of high blood pressure is the extra work it places on the heart; hence, as soon as such a patient presents evidence of tachycardia, digitalin in small doses should be given for four days and continued if the tachycardia persists. If this is done, the "gallop rhythm" does not appear for a long time, perhaps never. Fiessinger cites some cases in which erroneous interpretation of roentgenograms has led to unnecessary operations. In one case a spasmodic contraction of the colon was interpreted as a neoplasm. The same is true of gastric radiography, so that in doubtful cases he puts the patient to bed

(Continued on Page 42)

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Journal of the American Medical Association,
Volume 104, page 980, March 23, 1935.

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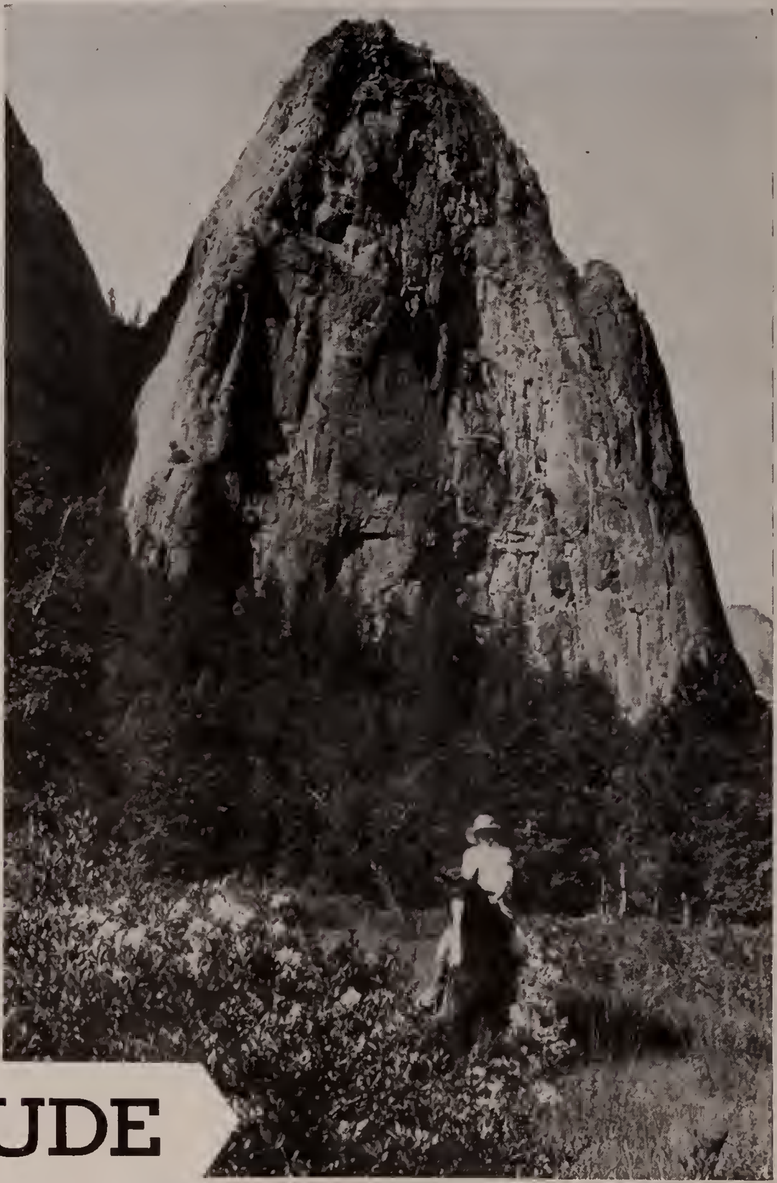

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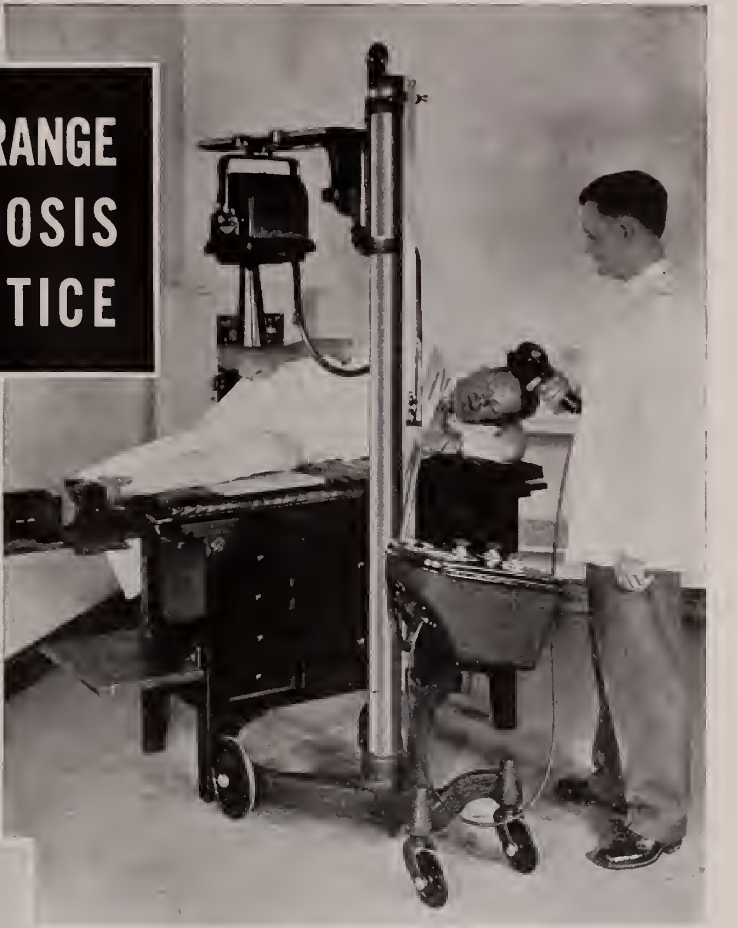

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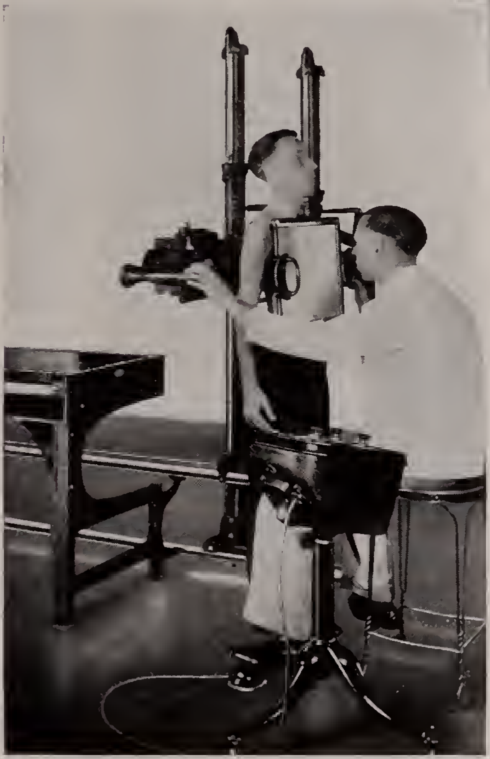

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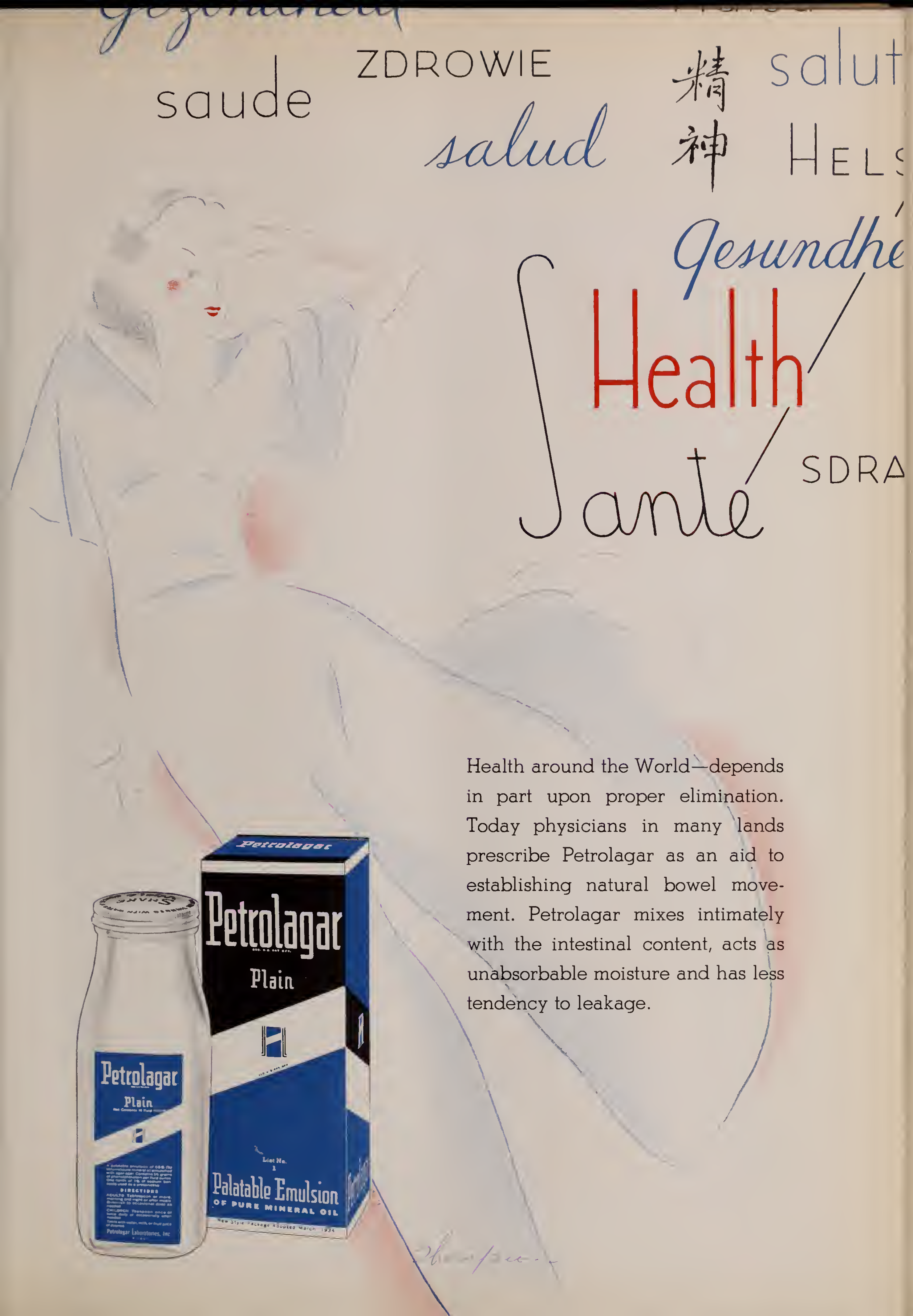
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(Continued from Page 34)

for one to two weeks, lessens the intake of food, and gives atropin to exclude pyloric spasm and dextrose solution rectally to combat dehydration. If the defect persists, operation is indicated. Fiessinger, in closing, pleads for good clinical observation as a supplement to laboratory results. In the majority of cases a delay of two or three weeks will not jeopardize the patient's life. Laboratory studies may then be repeated and may give a different result. Most patients are in a hurry to have an exact diagnosis made, but, when the advantages of further observation are explained, few will object to waiting until possible sources of error in diagnosis are eliminated. Fiessinger's reputation as a clinician merits attention being given to his warning to correlate clinical and laboratory observations.—*Paris News Letter.*

Sympathetic Ophthalmia in New York State. — Joy points out that sympathetic ophthalmia occurs less frequently than its diagnosis, since uveitis due to other causes, especially that due to tuberculosis, may give a similar clinical picture. A routine microscopic examination of the enucleated exciting eye is indicated if only for its statistical value. In 151 cases in which the clinical features of sympathetic ophthalmia were present, 126 exciting eyes were enucleated, forty-eight of which were examined microscopically: in all but seven the diagnosis was confirmed. The forty-one cases in which the diagnosis was established showed a higher percentage of final visual defects than did the cases in which no microscopic examination was made. Pathologic examination would eliminate the question of correct diagnosis. Analysis of

(Continued on Page 45)

●

CANNED FOODS AND THE PUBLIC HEALTH

II. Iron and Tin Salts

● The question is sometimes raised as to whether the metallic salts which canned foods may acquire from contact with tin containers are objectionable from the standpoint of public health. We are glad to present the facts in answer to this question.

The modern "sanitary style" can is manufactured from "tin plate". As the name implies, tin plate is made by plating or coating thin steel sheets with pure tin. This tin coating cannot be made absolutely continuous; under the microscope, minute areas can be noted in which the steel base is exposed.

Foods packed in plain or unenameled cans are, therefore, exposed to iron and tin surfaces. In enameled cans, foods are mainly in contact with inert lacquers baked onto the tin plate at high temperatures. However, because of minute abrasions in the enamel covering, unavoidably introduced during fabrication of the can, foods in enameled cans may also have limited contacts with iron and tin surfaces.

It is common knowledge that canned foods may acquire small amounts of these metals from contact with their containers. The acquisition of iron and tin salts in this manner is an electrochemical phenomenon (1); and the amounts of these metallic salts thus acquired will depend, among other factors, upon the character of the food. In general, the acid foods tend to take up more of these metals; especially when air is admitted after the can is opened. However, the quantities of tin or iron present in canned foods, as a result of reaction with the container, are small; the analytical chemist reports these amounts in "parts per million".

As far as iron is concerned, it is commonly accepted that the amounts of this element—recognized as essential in human nutrition—which may be present in canned foods, are innocuous.

As to the tin salts which may be present in canned foods, the Department of Agriculture has authorized the following statement as the result of its own investigation:

> "Our own experimental work, involving the ingestion of far larger amounts of tin than any previously reported, and supported by the experimental evidence of other investigators, leads us to the conclusion that tin, in the amounts ordinarily found in canned foods and in the quantity which would be ingested in the ordinary individual diet, is for all practical purposes, eliminated and is not productive of harmful effects to the consumer of canned foods." (2)

It may therefore be stated that the amounts of tin and iron salts normally present in commercially canned foods are without significance as far as possible hazard to consumer health is concerned.

AMERICAN CAN COMPANY

230 Park Avenue, New York City

---

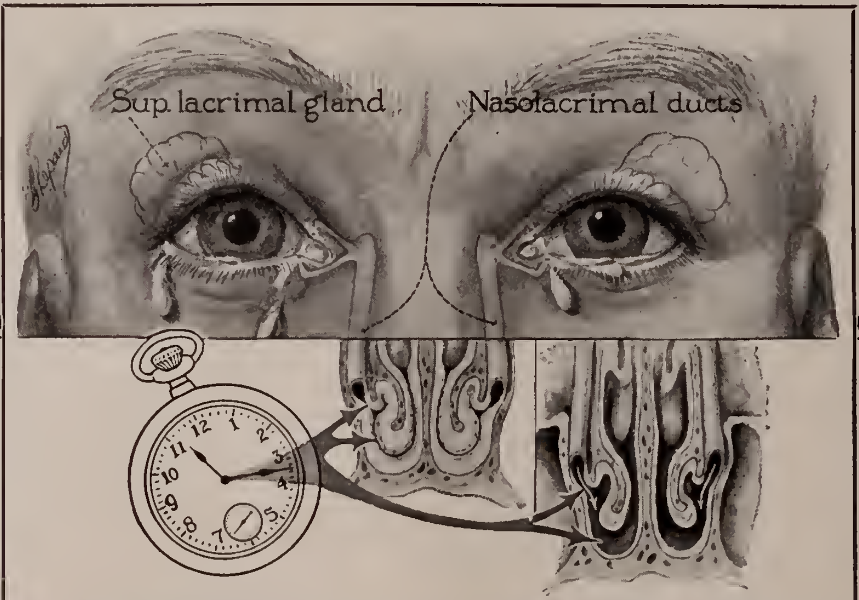
(1) Kohman and Sanborn, Ind. Eng. Chem. 20, 76, 1373 (1928); ibid, 22, 615 (1930).

(2) "Food-Borne Infections and Intoxications", F.W. Tanner, Twin City Pub. Co., Champaign, Ill. 1935, p. 90.

This is the tenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Committee on Foods of the American Medical Association.

DECONGESTIVE—SOOTHING



Nose stopped up—
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Congestion relieved after application of vaso-constrictor

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In relieving the symptom of nasal congestion, the valuable vaso-constrictor, Neo-Synephrin Hydrochloride, offers these advantages:

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(Continued from Page 42)

the forty-one confirmed cases indicates that: (1) The frequency of sympathetic ophthalmia is not decreasing. (2) Nonperforating trauma may not be a rare exciting cause. (3) Sympathetic ophthalmia due to cataract extraction is unusually violent and the prognosis grave. (4) The interval between injury to the exciting eye and the onset of sympathetic inflammation may vary from nine days to twenty-four years or possibly to forty-eight years. (5) Sympathetic ophthalmia may be feared for at least two months after enucleation of the exciting eye. (6) Removal of the exciting eye before the onset of sympathetic inflammation does not favorably influence the ultimate outcome if the enucleation is delayed twenty-six days or more after the injury. (7) Sympathetic ophthalmia in children is unusually severe and the outcome unfavorable. (8) Removal of the exciting eye favorably influences the ultimate outcome in the sympathizing eye.—*Archives of Ophthalmology.*

Hospitals: Operation of a Municipal Hospital a Governmental Function.—The defendant city of McAllen owned and operated a hospital, supplying hospital care to all persons within the city who were in need of it and charging a fee only to those who were able to pay. The hospital was built by means of a city bond issue and was operated as a part of the city government. The plaintiff, a pay patient, was injured as the result of the negligence of a student nurse employed by the hospital. The plaintiff and her husband sued the defendant city and its insurance carrier. From a judgment in favor of the plaintiff, the city and its insurance carrier appealed to the court of civil appeals of Texas.

A hospital, said the court, constructed and maintained by a city for the principal purpose of conserving the public health, as was the defendant hospital, receiving

(Continued on Page 47)

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and these exclusive features:

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Desensitize your Hay Fever Patients Early

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NOW is the time to desensitize your hay fever patients, for treatment well in advance of the onset of symptoms insures a greater degree of success in their alleviation.

Each year the effectiveness of pollen extracts in the treatment of hay fever becomes more definitely established, due to wider recognition by the physician of the necessity for accurate diagnosis and adequate dosage. By determining the period of onset of symptoms and the distribution of pollens at that time, the offending pollen may be easily identified by application of the diagnostic test. This should then be followed by intensive treatment up to the period of onset of symptoms.

For the diagnosis and treatment of your hay fever patients, the Mulford Biological Laboratories offer you a Complete Hay Fever Service. Mulford Pollens Dried and Pollen Extracts include practically all pollens of first importance in the United States and Canada, and meet practically all seasonal and geographical demands. This extensive assortment of pollens is offered you in a variety of packages for both diagnosis and treatment which meet *your own requirements in your own community.*

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Mulford pollen preparations are botanically true to label, being prepared from mature pollens specifically identified. They are freshly prepared and standardized and will retain their full strength through the dating period.

For diagnosis. Mulford Pollens Dried are supplied in tube-vials of 50 mgm. Mulford Pollen Extracts are supplied for the scratch test in concentrated form (at the rate of 50,000 pollen units per cc.) in convenient capillary tube-points sufficient for one test; for the intradermal test, in 2-cc. ampoule-vials (2,000 pollen units per cc.).

For treatment. Mulford Pollen Extracts are supplied in Graduated Dose Treatment Packages in syringes or vials, and in 5-cc. vials of 2,000 and 20,000 pollen units per cc.

Be sure to write for your copy of the informative booklet, "Hay Fever Therapy," thoroughly discussing principles and methods of diagnosis and treatment. Should you be confronted with any problem in pollen allergy, our Medical Department is at your service to assist you.

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Physicist

(Continued from Page 45)

indigent patients without charge, and applying all money received to expenses, is a charitable institution and is not liable to a pay patient for injuries due to the negligence of an employee. Furthermore, the defendant city operated the hospital in the performance of a governmental function and consequently was not, for that reason, liable in the present case. Accordingly, the court reversed the judgment of the trial court for the plaintiff. (*City of McAllen* v. *Gartman* (Texas), 81 S. W. (2d) 147.)—*Medico-Legal News Item.*

The Common Cold.—Browning, in his summary of the causation of the common cold, states that: (1) The common cold is, at least in some instances, due to an agent which is not habitually harbored by those attacked. This is proved by the outbreak of epidemics in isolated communities on the occasion of the first visit of strangers after an interval of no communication. (2) Evidence that an infective agent of the filter-passing type is responsible is furnished by the transmission of colds to quarantined human subjects and chimpanzees by the intranasal instillation of sterile filtrates of the nasal secretions of persons in the early stage of colds. The causal agent can survive for a considerable period outside the body, and is capable of proliferation in culture medium *in vitro.* (3) It is not determined whether the ordinary pathogenic bacteria which may occur in the upper respiratory tract are ever, by themselves, the causal agent of coryza, although there is no doubt that as superadded infections they are important in aggravating the condition and especially in bringing about complications. (4) The incidence of colds is to a great extent independent of climate, but has some relation to weather. Thus, a sudden fall in temperature tends to be followed by an outbreak, owing in all probability to a lowering of resistance of the tissues. Nothing is known regarding factors that may influence the virulence of the causal agents. (5) There is little or no evidence that the incidence of colds in a community is related to the general habits of living of its individual members.—*Glasgow Medical Journal.*

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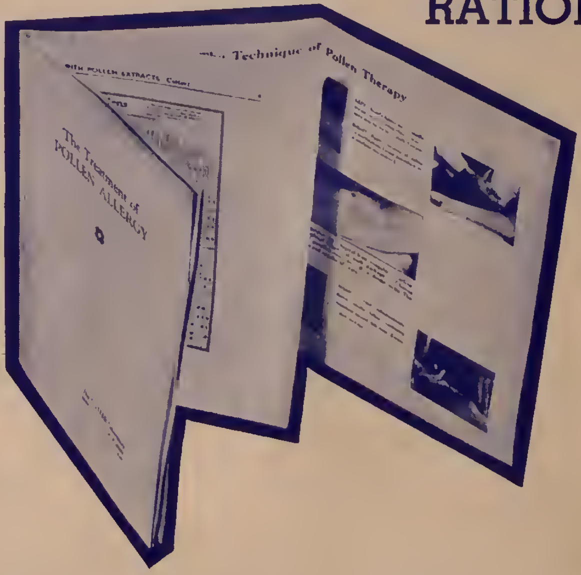

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Secretary, T. A. Card, Glenwood Block, Riverside.

Sacramento Society for Medical Improvement

President, Frank A. MacDonald, 822 Medico-Dental Building, Sacramento.
Secretary, Norris Jones, 1127 Eleventh Street, Sacramento.

San Benito County Medical Society

President, L. C. Hull, Hollister.
Secretary, L. E. Smith, Hollister.

San Bernardino County Medical Society

President, D. C. Mock, 215 Cajon Street, Redlands.
Secretary, A. E. Varden, 575 Fifth Street, San Bernardino.

San Diego County Medical Society

Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, Benjamin F. Eager, 711 Medico-Dental Building, 233 A Street, San Diego.
Secretary, Winston C. Crabtree, 14th Floor, Medico-Dental Building, 233 A Street, San Diego.

San Francisco County Medical Society

2180 Washington Street, San Francisco
President, Philip K. Gilman, 2000 Van Ness Avenue, San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.

San Joaquin County Medical Society

President, C. A. Broaddus, 907 Medico-Dental Building, Stockton.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.

San Luis Obispo County Medical Society

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Secretary, F. W. Yocom, Box 286, San Luis Obispo.

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Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.

Santa Barbara County Medical Society

President, P. A. Gray, 317 West Pueblo Street, Santa Barbara.
Secretary, William H. Eaton, Health Department, Santa Barbara.

Santa Clara County Medical Society

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Secretary, Cletus S. Sullivan, 815 Bank of America Building, San Jose.
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(Roster lists continued on advertising page 6)

Facts concerning . . .

# LIVER THERAPY

and the treatment of

PERNICIOUS ANEMIA

Published clinical data indicates:

1 — That ordinarily at least 200 grams of whole liver administered orally per day are required for adequate maintenance.

2 — That in the preparation of the early extracts for oral use the amount of antianemic substance obtained produced clinical effects comparable to those of about 65 per cent. of the amount of whole liver from which the extract was derived.

3 — That the parenteral injection of a given amount of solution liver extract is in general equivalent in clinical effects to 30 to 60 times the amount of liver from which it was derived given by mouth.

Published data shows that one vial of 3 cc. Concentrated Solution Liver Extract (*Lederle*) administered parenterally is equivalent in clinical effects to 3000 to 5000 grams of whole liver administered by mouth.*

It is evident:

1 — That for oral use ordinarily 6000 grams or more of whole liver are required per month per patient.

2 — That for oral administration the extract obtained from 9000 grams is, according to clinical observation, the approximate clinical equivalent of about 6000 grams of whole liver.

3 — That despite inevitable losses of antianemic material entailed in its preparation, the equivalent dosage of parenterally administered Lederle extract will be that obtained from 300 grams or less of liver per month.

4 — The adequate treatment of pernicious anemia consists in the treatment of all of the symptoms and requires definite amounts of the antianemic substance.

Each vial of 1 cc. CONCENTRATED SOLUTION LIVER EXTRACT (*Lederle*) contains active substance obtained from 100 grams of liver.

*Amer. Jour. Med. Sciences, 1933, *186*, 362.

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Lederle
FOR ORAL USE
SOLUTION LIVER EXTRACT
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LIVER PRODUCTS

Lederle

Solution Liver Extract Oral—8 and 16 oz. bottles
Three 3cc. Concentrated Solution Liver Extract Parenteral.
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Sacramento—State Office Building, Tenth and L Streets. CApital 2800.

Los Angeles—State Office Building, 217 West First Street. MAdison 1281.

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Southern California Medical Association

President, Franklin R. Nuzum, Cottage Hospital, Santa Barbara.

Secretary, Robert W. Langley, 1002 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

The Public Health League of California

Executive Secretary, Ben H. Read. San Francisco Office, 450 Sutter Street. Los Angeles Office, Room 563, 1151 South Broadway.

Better Health Foundation

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ALUM ROCK SANATORIUM
For Treatment of Tuberculosis
San Jose, California

CALIFORNIA SANITARIUM
For Treatment of Tuberculosis
Belmont, California

CANYON SANATORIUM
For the Treatment of Tuberculosis
Redwood City, California

COLFAX SCHOOL FOR THE TUBERCULOUS
For the Treatment of Tuberculosis
Colfax, California

COMPTON SANATORIUM AND LAS CAMPANAS HOSPITAL, COMPTON
Neuropsychiatric and General
Compton, California

FRANKLIN HOSPITAL
Limited General Hospital
Fourteenth and Noe Streets, San Francisco

FRENCH HOSPITAL
General Hospital
Geary at Fifth Avenue, San Francisco

GREENS' EYE HOSPITAL
Consultation, Diagnosis and Treatment of Diseases of the Eye
Bush and Octavia Streets, San Francisco

LAS ENCINAS SANITARIUM
Nervous and General Diseases
Las Encinas, Pasadena, California

LIVERMORE SANITARIUM
Nervous and General Diseases
Livermore, California

OAKS SANITARIUM
For Treatment of Tuberculosis
Los Gatos, California

POTTENGER SANATORIUM AND CLINIC
For the Treatment of Tuberculosis
Monrovia, California

PARK SANITARIUM
Mental and Nervous, Alcoholic and Drug Addictions
1500 Page Street, San Francisco, California

SOUTHERN SIERRAS SANATORIUM
Treatment of Tuberculosis
Banning, California

SAINT FRANCIS HOSPITAL
Limited General Hospital
Bush and Hyde Streets, San Francisco

ST. LUKE'S HOSPITAL
Limited General Hospital
27th and Valencia Streets, San Francisco

ST. MARY'S HOSPITAL
General Hospital
2200 Hayes Street, San Francisco

TWIN PINES
Convalescent and Neuropsychiatric
Belmont, California

A Managed Investment Fund

COMMONWEALTH SHARES

A detailed prospectus will be gladly furnished on application.

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TELEPHONE EXBROOK 5758 **JOHN M. WILMANS CO., LTD.** RUSS BLDG., SAN FRANCISCO

Salvage Drugs Lead to Trouble.—Joe W. Link of Dallas, Texas, erstwhile wholesaler in salvage drugs, operating as the Dr. A. W. Link Medicine Company, was recently fined $300 in federal court, the Food and Drug Administration reports. Link, characterized by federal agents as one of the most persistent operators in the disreputable drug salvage business, was charged with having made interstate shipments of "Oxidine" and "Kompo," both misbranded in violation of the Food and Drugs Act. Evidence indicated that Link obtained the goods in foreclosure, bankrupt, or other "distress" proceedings, and ignoring the prohibition against the interstate shipment of medicines carrying false and fraudulent curative claims, sold them to customers outside the state. This was despite the fact that both "Oxidine" and "Kompo" had been the subject of previous seizure actions by federal authorities.

Link's conviction is another step in the clean-up of resurrected stocks of antiquated medicinals, the Administration said. Texas, Link's home state, has been most active in rounding up these articles. In his annual report issued recently, W. G. Campbell, Chief of the Food and Drug Administration, said: "In Texas, where state officials took the initiative, a rapid and thorough campaign brought the destruction of twenty-eight tons, comprising literally thousands of illegal items. As a result of combined state and federal activities, two of the largest houses dealing in salvage stocks have discontinued that line, and numerous small operators have turned to fields not within the scope of food and drug legislation."

All the patent medicines caught in the campaign were found in a deteriorated or misbranded condition. Many of them were manufactured before the federal law was passed in 1906. The explanation for this, according to the Administration, lies in the fact that such drugs, accumulating for years on druggists' back shelves, could not be subject to the federal law until moved across some state line. This occurred when salvage drug dealers picked up the stocks and put them again in the channels of commerce. "This is a vicious practice," said Dr. M. A. Hodgson, commenting on the case. Doctor Hodgson represented the Food and Drug Administration at the trial.

"Kompo Bile Salts Tablets" were red-coated pills containing bile salts, phenolphthalein and small amounts of calcium, magnesium, iron and aluminum salts. They were represented in labels and circulars as a treatment for liver and kidney ailments, gall-stones, heart trouble, hardening of the arteries, neuritis, rheumatism, neurasthenia, insomnia, ulcers, and cancer. "Oxidine," a solution of quinin and cinchonin sulphate with a laxative in sweetened water and alcohol, was offered as a treatment for chills and fever, colds, influenza, and grippe. In neither case could the claims be substantiated, it was charged, as the articles did not contain ingredients capable of producing the pretended effects.

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Perhaps you want a certain kind of instrument which is not advertised in California and Western Medicine, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This A. M. A. Service Bureau will give you the information. Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to write direct to the Coöperative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago, Illinois. California and Western Medicine and the A. M. A. Service Bureau desire to serve *you*.

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The course will include a foundation in Anatomy, Surgical Pathology, Diagnosis, and Operative Technic. As supplementary to the work on cadavers, and fresh human material, lectures and demonstrations will be given on the living by leading surgeons of San Francisco. The hours will be arranged so as not to interfere with the practice of physicians in San Francisco and nearby cities and towns. Opportunity will be given to assist in operations, and some of the work will be done by the students themselves. The course will run every Tuesday from 11 to 3 o'clock.
Applicants must be graduates of schools approved by the State Board of Medical Examiners
For descriptive circular and further information, inquire of

SAN FRANCISCO POLYCLINIC AND POSTGRADUATE COLLEGE, or
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Federal Food and Drug Administration — Patent Medicines Falsely Labeled. — Manufacturers and shippers of patent medicines were fined, as indicated, for having shipped products under labeling carrying false statements of effectiveness, and false and fraudulent curative claims for the treatment of the conditions named: Aseptico Laboratories, Inc., Rochester, New York, "Alabin," a purported antiseptic powder which was not antiseptic in the dilutions recommended on the label, and was offered for bleeding gums and cankered mouth, fine $75, of which $50 was suspended by the court; Bostwick Brothers Company, Atlanta, Georgia, "Bostwick's White Pine Cough Syrup" for coughs, hoarseness, sore throat, and all diseases of the throat and lungs (the product, in addition, carried no label statement of the alcohol and chloroform it contained), fine $100; Dayton Laboratories, Inc., Dayton, Ohio, "Obegyne," a purported antiseptic jelly found on test to be non-germicidal, for women's ailments and venereal diseases, fine $25; Gray's Medicine Company, South Bend, Indiana, "Kavatone," a solution of potassium iodid, plant laxatives and aromatic oils in water, glycerin and isopropyl alcohol, for rheumatism, impure blood and for stomach, kidney and liver ailments, fine $5; Nostane Products Corp., Brooklyn, New York, "Dabon Brushless Shaving Cream," represented as antiseptic and "healing" when in fact not antiseptic, and "Dr. Brown's Baby Oil," likewise represented as antiseptic, and as a protection against rash and skin irritations, when in fact not antiseptic, fine $450; and J. R. Watkins Company, Winona, Minnesota, "Watkins Veterinary Balm," another purported antiseptic and germicide devoid of germ-killing power under the conditions of use, offered for the treatment of inflammation, congestion, open cuts, cowpox, and other injuries and ailments of livestock, fine $135.

One action alleging the interstate shipment of a misbranded ointment and a misbranded liver regulator by a Southern shipper was dismissed on evidence of dissolution of the defendant corporation.

COOK COUNTY GRADUATE SCHOOL OF MEDICINE
(In affiliation with Cook County Hospital)

MEDICINE—Informal Course; Personal Courses; Intensive Course, two weeks, starting April 13.
SURGERY—General Course, one, two, three and six months; Intensive Course, Surgical Technique, every two weeks; Special Courses.
GYNECOLOGY—Three Months' Course; Intensive Course, two weeks; Combined Course, four weeks, Gyn. and Obst., starting May 4.
OBSTETRICS—Informal Course; Intensive Course, two weeks; Combined Course, four weeks, Gyn. and Obst., starting May 4.
FRACTURES AND TRAUMATIC SURGERY—Informal Practical Course; Intensive Course, ten days, starting April 13.
PEDIATRICS—Informal Course; Personal Courses.
EAR, NOSE AND THROAT—Informal Course; Intensive Course, two weeks; Special Courses.
UROLOGY—General Course, two months; Intensive Course, two weeks; Special Courses.
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General, Intensive, and Special Courses in Tuberculosis, Ophthalmology, Roentgenology, Dermatology and Syphilology, Pathology, Neurology, Electrocardiography, Topographical and Surgical Anatomy; Physical Therapy, Gastro-enterology, Allergy, Hemorrhoids, and Varicose Veins.

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Address: Registrar, 427 South Honore Street, Chicago, Ill.

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Rates for these insertions are $4 for fifty words or less; additional words 5 cents each.

COACHING FOR STATE BOARDS—MEDICAL AND Dental. Arthur H. White, M. D., Suite 1005, Flood Building, San Francisco.

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MODERN HOME MEDICAL ADVISER, BY DR. MORRIS Fishbein and 23 specialists. Covers every disease and accident; a safe guide for student or practitioner 880 pages, 136 illustrations. $9.50 delivered. If check accompanies order, deduct 10 per cent. Fassett Book Co., Burlingame, California.

Federal Food and Drug Administration — Other Drugs in Libel Proceedings.—Other drugs involved in libel proceedings during the past month were those labeled with false and fraudulent curative claims, as follows: "Blu-V-Spray," a blue-colored mixture of disinfectants, aromatics and a preservative, for gapes, bronchitis, intestinal flu, head colds and other infectious ailments of the head, throat and respiratory organs of poultry; "Carboil," consisting of petrolatum, tar oil and chloral hydrate, for boils, eruptions and other skin troubles; "Dr. Daniels' Wind Colic Drops," containing plant laxatives, a bitter drug and red color, for stomach troubles of horses and cattle; "Diatone," consisting of a starch digestant, salt and clay, for diabetes; "Doran's Gape Remedy," made of lime, charcoal, earthy matter and potassium permanganate, to be dusted on poultry for the cure of gapes; "Edouard's B. Acidophilus Compound," represented as a source of bacillus-acidophilus, all the vitamins, and other ingredients which were lacking, inert, or were present in such minute amounts as to be without effect, and bearing claims for the treatment of constipation; "Fowlerine," consisting of a sulfurated oil, turpentine and wintergreen, for kidney, bladder and rheumatic troubles, diabetes, dropsy, Bright's disease, heart failure, nervousness, indigestion and ailments of the stomach and generative organs; "Heberling's Poultry Worm Expeller," consisting of kamala and nicotin, for the removal of tapeworms and round worms in poultry; "Heberling's Roup Powder," made of potassium permanganate and calcium and magnesium carbonates and sulphates, for roup, cholera and canker in poultry; "Jermite Wormer," consisting of minerals, laxatives, a preservative, anise oil, oleoresin aspidium and water, for pin, round, and tapeworms in poultry; "Kopp's," a soothing syrup containing morphin sulphate, falsely labeled as safe for children; "Lubrol," a purported antiseptic jelly found on test to be nongermicidal, for women's ailments; "Mineral Life," a mineral water, for the general treatment of disease, pain, inflammation, or ulceration, and for catarrh and sinus trouble; "Nevah Tablets," containing amidopyrin, sodium salicylate, colchicine and magnesium oxid, represented as "safe" despite the presence of the dangerous drug amidopyrin; "Slim," a dinitrophenol reducing preparation, likewise falsely and fraudulently offered as "safe"; "Van-Tage Medicine," consisting of potassium iodid, pepsin, laxatives, water, glycerin and a preservative, for ailments of the stomach, bowels, liver, and kidneys; witch-hazel, short volume, and bearing claims for the treatment of rheumatism, piles, and hemorrhages; "Wittone," a pink-colored water solution of Epsom salts and salicylic acid, flavored with cinnamon, for indigestion, coated tongue, headache, chronic malaria, rheumatism pains, impure blood, influenza, dysentery, bloody flu, and cholera infantum; and "Zo-Ro-Lo," a red-colored Epsom salt solution flavored with glycerin, citric acid and menthol, and preserved with benzoic acid, for indigestion and autointoxication.

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Man's intellectual and spiritual destiny is in no small degree determined by what and how he reads. As reading is a mark of civilized peoples, so it is of individuals who grow and progress. Its importance, which arose with the art of writing, mounted rapidly after the invention of printing, and reached its present climax through the wide diffusion of books.—Leon J. Richardson.

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BOOK REVIEWS

List of Books Received

BOOKS RECEIVED

An Index of Differential Diagnosis of Main Symptoms. By various writers. Edited by Herbert French, C. V. O., C. B. E., M. A., M. D., Oxon., F. R. C. P., London, Consulting Physician to Guy's Hospital; late Physician to H. M. Household. Fifth edition. Cloth. Pp. 1,145, with 742 illustrations, of which 196 are colored. Price, $16. Baltimore: William Wood and Company, 1936.

Abortion, Spontaneous and Induced. Medical and Social Aspects. By Frederick J. Taussig, M. D., F. A. C. S., Professor of Clinical Obstetrics and Clinical Gynecology, Washington University School of Medicine, St. Louis. Cloth. Pp. 536, illustrated. This volume is one of a series dealing with medical aspects of human fertility sponsored by The National Committee on Maternal Health, Inc. St. Louis: The C. V. Mosby Company, 1936.

Medical Mycology. Fungus Diseases of Men and Other Mammals. By Carroll William Dodge, Ph. D., Mycologist, Missouri Botanical Garden; Professor, Henry Shaw School of Botany, Washington University, St. Louis. Cloth. Pp. 900, illustrated. St. Louis: The C. V. Mosby Company, 1935.

Synopsis of Clinical Laboratory Methods. By W. E. Bray, B. A., M. D., Professor of Clinical Pathology, University of Virginia; Director of Clinical Laboratories, University of Virginia Hospital. Cloth. Pp. 324, with thirty-two text illustrations and eleven color plates. St. Louis: The C. V. Mosby Company, 1936.

NEW MEDICAL BOOKS

de Kruif: Why Keep Them Alive $3.00
Harris: Vitamins in Theory and Practice 3.00
Stimson: Common Contagious Diseases 3.75
White: Twentieth Century Psychiatry 2.00
Wood: Dangerous Diseases of the Ear 5.25

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236-238 Flood Building San Francisco

Examination of the Patient and Symptomatic Diagnosis. By John Watts Murray, M. D. Second edition. Cloth. Pp. 1,219, with 274 illustrations. St. Louis: The C. V. Mosby Company, 1936.

International Clinics. A Quarterly of illustrated clinical lectures and especially prepared articles. By leading members of the medical profession throughout the world. Edited by Louis Hamman, M. D., Visiting Physician, Johns Hopkins Hospital, Baltimore. Volume I, Forty-sixth Series, 1936. Cloth. Pp. 314. Philadelphia: J. P. Lippincott Company, 1936.

Luftwege, Mund und Ohr. Diagnostik in Tabellenform. Von Dr. Alexander Cemach, Facharzt für Hals-, Nasen und Ohrenkrankheiten im Wien. Mit 370 Grosstenteils Farbigen Abbildungen im Text und auf 38 Tafeln. Wien: Verlag Von Wilhelm Maudrich, 1936.

(Continued on Next Page)

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(Continued from Preceding Page)

The True Physician. The Modern "Doctor of the Old School." By Wingate M. Johnson, M. D. Cloth. Pp. 157. Price, $1.75. New York: The Macmillan Company, 1936.

A Textbook of Surgery. By American authors. Edited by Frederick Christopher, B. S., M. D., F. A. C. S., Associate Professor of Surgery at Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Cloth. Pp. 1,608, with 1,349 illustrations on 730 figures. Price, $10 net. Philadelphia: W. B. Saunders Company, 1936.

BOOK REVIEWS

Medical Mycology, Fungus Diseases of Men and Other Mammals. By Carrol W. Dodge, Ph. D., Professor, Henry Shaw School of Botany, St. Louis, Mo. Cloth, 900 pp., illustrated. Price, $10. C. V. Mosby Company, St. Louis.

A satisfactory, complete, well arranged and dependable text for those interested in the subject. Contains an extended bibliography.

Abortion: Spontaneous and Induced. Medical and Social Aspects. By Frederick J. Taussig, M. D., Clinical Professor of Clinical Gynecology, Washington University. Illustrated. Cloth, 536 pp. Price, $7.50. C. V. Mosby Company, St. Louis, Mo.

This volume is one of a series dealing with medical aspects of human fertility. It is sponsored by the National Committee on Maternal Health, Inc. This is a text that should be in the hands of every general physician and gynecologist not only to read but to refer to frequently. It brings into the zone of human facts a spreading practice and a remediable evil and speaks with authority. It imparts a true survey of all the factors involved in abor-

(Continued on Page 14)

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BOOK REVIEWS

(Continued from Page 12)

tions, including the social, economic and legal elements. It brings a wide experience in the therapeutic and surgical care. Too much cannot be said in commendation and recommendation of this text that renders a fundamental service in theory, application and treatment of abortion and its associated problems.

Width-Weight Tables. By Helen B. Pryor, M. D., Medical Examiner for Women, Stanford University. Stanford Press. Price, 60 cents.

Width-weight tables for boys and girls from 1 to 16 and for men and women from 17 to 24, devised and based on the author's examination experiences. Physicians may readily ascertain whether the individual is too thin or too fat by consulting these very practical and useful tables.

Synopsis of Clinical Laboratory Methods. By W. E. Bray, M. D., Professor Clinical Pathology, University of Virginia. Cloth, 324 pp., 32 illustrations. Price, $3.75. C. V. Mosby Company, St. Louis, Mo.

This is a ready reference of the most frequently used methods of laboratory diagnosis. It contains much of the more recent information. It should be of aid to the laboratory worker and to the physician doing many of his own laboratory findings.

Examination of the Patient and Symptomatic Diagnosis. By John W. Murray, M. D. Second edition, illustrated. Pp., 1,220. Cloth. Price, $10, C. V. Mosby Company, St. Louis, Mo.

No new material is presented. The text is a compilation featuring patient's history, symptomatology and conditions that enable diagnosis to be more accurate. As such, this compilation will be quite valuable to the practitioner, especially the recent graduate. It is quite inclusive. The illustrations could be better, for their typographical reproduction is quite a deterring feature and unsatisfactory.

International Clinics: A Quarterly. Edited by Louis Hamman, M. D. Volume I, Forty-sixth Series. 1936. J. B. Lippincott Company, Philadelphia.

This volume initiates the forty-sixth series of this clinical publication. It maintains the standard established and will be of interest to the irregular reader.

Luftwege, Mund und Ohr. By Dr. Alexander Cemach, Wien, Austria.

Printed in German, profusely illustrated, many of them colored. Received, subject to possible review.

An Index of Differential Diagnosis of Main Symptoms. By various writers. Edited by Herbert French, M. D., London. Fifth edition, 1,145 p. Price, $16. William Wood & Company.

The first edition was printed in 1912. It is a treatise on the application of differential diagnosis to all the main signs and symptoms of disease. It covers the entire field of medicine and apparently is of practical utility to medical men whenever difficulty is encountered in interpreting symptoms. It is an index to diagnosis. It is well written and the illustrations, well chosen, enhance the text. The index is excellent and constitutes a feature that will be greatly appreciated when search is made to correlate symptoms. The work will be of value to all physicians.

Infectious Disease Deaths Among Children.—A study of mortality among children under fifteen years of age in California by five-year periods since 1906 has been completed by the California State Board of Health. Whooping-cough is still a major cause of death among infants just as it was thirty years ago. Tuberculosis, all forms, still claims a considerable number of infant lives although the rates have been lowered considerably during recent years. The reduction in diphtheria and typhoid fever mortality among children under fifteen years of age is most conspicuous. The most outstanding results have been achieved in reducing the diphtheria rate among children between five and fourteen years of age.

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TWENTY-FIVE YEARS AGO

(Continued from Text Page 352)

From an article on "Exhibition of Cases of Pituitary Disease" by Herbert C. Moffitt, M. D., San Francisco.

In the *California State Journal* of July of last year I reported several cases of hypophysis disease. This evening I desire to present patients illustrating both hypo- and hyperpituitarism. . . .

From one article on "A Gauze Sponge Left in the Skull for Over Six and One-half Years" by Harry M. Sherman, M. D., San Francisco.

On the 29th of October, 1902, I did, at St. Luke's Hospital, the Gasserian ganglion operation on a man, aged 65, for a trigeminal neuralgia, from which he had suffered for ten years and which had resisted several operations on the peripheral nerves. . . . .

The gauze had been inside the skull six years, nine months and twelve days. I submitted it to Dr. A. W. Lee for an examination and he reported that no change had come to the cotton filaments in the time.

I submit this statement as it probably represents the longest time of residence of a left-in sponge after an operation. The long immunity from infection after the operation speaks well for the aseptic technique in the St. Luke's Hospital operating rooms at the time of the operation. . . .

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From an article on "Regarding Malpractice Defense by the State Society."

A recent malpractice suit for $50,000 in Los Angeles draws attention to the following facts:

1. In this recent suit, one of the "private companies" acted so queerly that it was not even represented in the defense.

2. The burden of the defense rested on the attorney for the Medical Society of the State of California.

3. The jury took only twenty minutes to award a verdict in favor of the doctor who was sued.

Conclusions: Malpractice defense by the Medical Society of the State of California is absolutely efficient. If you wish to donate $10 or $15 to a private company (organized for profits only), that is your business, but it would be more altruistic to donate it to the building fund of the Los Angeles County Medical Association.—*Bulletin of the Los Angeles County Medical Association.*

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 352)

following his arrest this week by inspectors of the State Division of Narcotics. The inspectors, Jack Harrigan and A. V. Beckner, arrested the physician at his home after he was said to have sold a prescription for drugs to the officers." (Huntington Park *Bulletin*, February 16, 1936.)

"Charged with possession of narcotics, Dr. Samuel A. Twain this morning appeared before Superior Judge

(Continued on Next Page

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

Frank Ogden and March 25 was set as the date for his trial. In the complaint Doctor Twain is charged with obtaining five grains of morphin on two prescriptions and not giving it to the person for whom it was prescribed." (Alameda *Times-Star,* February 20, 1936.) (Previous entry, March, 1936.)

"The District Attorney's office is seeking a man who calls himself J. T. Singleton on a grand theft charge, and H. J. Eagal, local automobile dealer, is convinced that methods of fraud are many and varied, as the result of a 'sale' made by Althouse-Eagal Company several days ago. Declaring that he was a physician recently added to the staff of the San Joaquin General Hospital, Singleton arranged for a trade-in of his old car at the automobile sales room. Unable to obtain the new car at once the man negotiated the loan of another car until the new one was delivered. Mr. Singleton drove away in the car, but has failed to return. The office of the District Attorney reports that no physician named Singleton has been added to the hospital staff recently." (Stockton *Independent,* February 26, 1936.) The records of the Board of Medical Examiners show this racket is frequently worked by persons claiming to be physicians. A similar report emanated from El Centro, as mentioned in "News Items" of February, 1936.

"One year in the Alameda County jail and a $200 fine constituted the sentence meted out yesterday to David A. Monheit, fifty-one, Oakland 'drugless practitioner,' following his conviction of hit-and-run driving and negligent homicide. Monheit was found guilty of the automobile-killing of John De Mace, sixty-five, at Seventh and Clay streets, Oakland, last October. The most damaging witness was Mrs. Belle Petros, who testified Monheit, after striking down De Mace, drove off a short distance, started his car and then walked back to survey the unconscious form in the gutter. Aftr surveying the victim and shaking his head, Monheit returned to his machine and drove off, according to Mrs. Petros. Mrs. Petros said that she observed the situation from a window of her apartment. Monheit's defense was that he was not involved in the hit-run negligent homicide case; that dents in his fenders were due to a non-injury accident the night before De Mace was killed. Superior Judge Leon E. Gray sentenced Monheit to a year in jail on each of the two criminal counts, but decreed the sentences should run concurrently. The $200 fine was assessed additional to the negligent homicide conviction." (San Francisco *Examiner, East Bay Edition,* March 4, 1936.) The records of the Board of Medical Examiners show that David A. Monheit is a licensed chiropractor and does *not* hold a "drugless practitioner" certificate.

"Trial of Dr. J. Douglas Thompson (licensed chiropractor) on charges of falsely advertising a product known as 'Dubla,' was scheduled to open this afternoon before Police Judge Edward J. Tyrrell. Complaint against Doctor Thompson was filed by C. B. Heiser, inspector for the Bureau of Food and Drugs of the State Department of Public Health, who asserted 'Dubla' was offered for sale, accompanied by pamphlets asserting the preparation had been discovered by the doctor after 'years of research,' to enable persons using it to diagnose the condition of their blood. . . ." (Oakland *Tribune,* March 4, 1936.) (Previous entries, March, 1928, page 392; March, 1936.)

"Dr. Curtis M. Beebe, 901 Hudson Avenue, owes the Government more than $2,500 additional for income taxes

(Continued on Page 20)

Reprint from Chicago Daily Tribune, Monday, July 23, 1934

RESULT OF SURVEY OF NATURAL BIRTH CONTROL IS GIVEN

Experts Hold Ogino-Knaus Theory Is Sound

Results of a local study-survey undertaken by the Latz Foundation, a Chicago institution for the promotion of "the natural birth control method" through application of the so-called Ogino-Knaus theory or rhythm theory, were announced by the foundation yesterday. They indicate a favorable reaction to the subject from medical authorities who were cited.

The survey was limited, it was explained, to obtaining opinions on the theory from the heads of gynecological and obstetrical departments of five medical schools in Chicago and from the present and four former presidents of the Chicago Gynecological society. Opinions from a few specialists and general practitioners known to have had experience in the application of the Ogino-Knaus theory also were included.

Latz Explains Purpose

Application of this theory of "the rhythm of fertility and sterility in women," as against the use of contraceptives, is fostered by the Latz Foundation, according to its president, Dr. Leo J. Latz, "for spacing births where physiological or economic reasons warrant such action, and to assist in overcoming apparent inability to have children."

All of the physicians quoted in the results of the survey as released by the Latz Foundation agreed "that the fundamental basis of the Ogino-Knaus theory are scientifically sound." The Latz Foundation is supported by proceeds from the sale of a book, "The Rhythm," by Dr. Latz who is a member of the teaching staff of Loyola University Medical School.

The book is described on its title page as "a discussion of the physiological, practical and ethical aspects of the discoveries of Dr. K. Ogino (Japan) and H. Knaus (Austria) regarding the periods when conception is impossible and when possible."

Dr. Curtis Gives Consensus

After reviewing the findings of the survey, Dr. Arthur H. Curtis, head of the departments of gynecology and obstetrics at Northwestern University and Passavant Memorial Hospital, stated the consensus as follows:

"Apparently it has been demonstrated conclusively by Hartman (Dr. Carl G. Hartman, embryologist of the Carnegie Research Foundation) and others that the egg of the human female does not live longer than approximately a day after it becomes free unless pregnancy occurs.

"It is also now generally accepted that the spermatozoa (the male elements), contrary to former belief, do not live longer than a day, or two days at the most.

Results in Regular Cases

"Finally, we now may state that, in the case of women with regular 28 day cycles, ovulation generally occurs 12 to 16 days before the onset of the cycle.

"In the normal individuals with regular cycles the occurrence of pregnancy is highly improbable except during a few days which begin 16 days before the onset of the cycle.

"There remains little ground to question further the scientific accuracy of these fundamentals. There does remain much ground for investigation on the exceptions which may be expected to occur in the case of this biologic law like all others.

"Moreover, there is great need for exact clinical observation to chart the way for the successful practical application of what has been learned in this most important development in medical science."

Authorities whose opinion was sought in the survey included:

DR. N. SPROAT HEANEY, chairman, department of gynecology and obstetrics, Rush Medical School, chief gynecologist and obstetrician of the Presbyterian Hospital.

DR. FRED L. ADAIR, chairman, department of obstetrics and gynecology, University of Chicago, and chief of the gynecological service of the Chicago Lying-In Hospital.

DR. F. H. FALLS, head of the department of obstetrics and gynecology, University of Illinois Medical School and University of Illinois Research Hospital.

DR. HERBERT E. SCHMITZ, associate professor of gynecology, Loyola University Medical School, where his father, Dr. Henry Schmitz, now in Europe, head the gynecological department.

DR. IRVING F. STEIN, president, Chicago Gynecological Society.

DR. MARK. T. GOLDSTINE, chief of the medical and surgical staffs, Wesley Memorial Hospital, former president, Chicago Gynecological Society.

DR. ANDREW C. IVY, head of the department of physiology, Northwestern University.

DR. JOSEPH A. TOBIN, director of nursing education, De Paul University and the university's nine affiliated hospitals, and president of the Cosmas and Damian Associates, organization of Catholic physicians.

DR. PAUL E. LAWLER, professor of obstetrics, Loyola University Medical School.

DR. PHILIP M. LAW, neurologist and member of the staffs of the Cook County and University Hospitals.

DR. A. E. LUCKHARDT, member of the staff of the Grant Hospital.

"Two years ago I became convinced of the authenticity of the Ogino-Knaus method," Dr. Heaney is quoted in the foundation's survey. "As a result I began advising its use to patients who rightfully wished to avoid conception. During these two years in every single case where the prescribed method was followed not a single pregnancy has occurred"

Dr. Ivy, who has done research work under Dr. Hartman, who reached conclusions almost identical with those of Knaus through experiment on monkeys, according to the survey, said:

"Biology might be called a science of rhythms whether it has reference to humans or animals. The best available evidence now supports the rhythm of reproductivity in man as well as in other mammals. There is absolutely no question of the existence of an optimum time of the fertility in women and there lies the crux of this whole problem. Nevertheless, just as there are exceptions to every other biologic law, so there must be exceptions to this one."

Reprint from "Time"

RHYTHM BIRTH CONTROL

The Pope frowns on all forms of contraception because they prevent the birth of children, prime purpose of Roman Catholic matrimony. A thoroughgoing realist, the Pope at the same time knows that many loving Catholics who fear to have children defy his pontifical frown. Therefore he decided that it is morally right and proper for Catholic couples to utilize the wife's monthly rhythm of sterility and fertility as a natural method of contraception.

The Pope gave permission to do so in his 1930 Encyclical on Marriage, Casti Connubii. Said he: "Nor are those considered as acting against nature who in their married life use their right in the proper manner, although on account of natural reasons of time or of certain defects, new life cannot be brought forth."

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Acriflavine-Neutral (Calco)
For use in alkaline urine ½ gr. tablets, 50 in bottle, with red litmus paper attached to each bottle.

Also supplied in separate bottles if desired.

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ASSOCIATED WITH
FRATES & LOVOTTI, PROFESSIONAL PHARMACISTS

BOARD OF MEDICAL EXAMINERS

(Continued from Page 18)

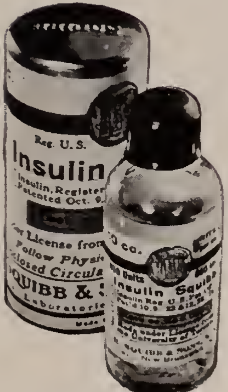
over a four-year period, according to liens filed in the federal court yesterday by Internal Revenue Collector Nat Rogan. The amounts sought are: 1929, $756; 1930, $600; 1931, $648; 1932, $653. . . . (Los Angeles *Times,* March 10, 1936.)

"Dr. Carl Weberg, Pasadena chiropractor, yesterday was acquitted on an illegal operation charge by a jury in Superior Judge Charles W. Fricke's court. Doctor Weberg was accused of having unlawfully treated Miss Virginia Harris, 1044 Willat Avenue, Glendale. After the girl had told of visiting his office at 673 North Fairoaks Avenue on three occasions last autumn, the chiropractor admitted she had been his patient, but denied there was anything illegal in his treatment." (Los Angeles *Examiner,* March 1, 1936.) (Previous entries, July, August, September, 1926; February, 1928.)

"Three men, one a Huntington Park chiropractor, were under arrest today on suspicion of having taken merchandise valued at more than $20,000 from the warehouse of the Los Angeles Drug Company, Inc., 1136 South San Julian Street, during the last few months. Suspects were Dr. Walter J. Clark, forty-two, whose home is at 3256 Liberty Street, Southgate; Orrie Beswick, fifty-one, contractor of 2906 Liberty Street; and Irvine Brotts, forty-three, of 941 Amisted Street, night watchman at the warehouse. The men were arrested by detectives who had 'staked out' at the warehouse. They reported a car drove up to the warehouse and the three men systematically loaded it with seventeen cases of merchandise valued at more than $5,000. Doctor Clark was arrested after he had driven away. His wife, who was with him, was released.

(Continued on Page 22)

INSULIN SQUIBB



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INSULIN SQUIBB is an aqueous solution of the active principle obtained from beef pancreas. In common with other brands of insulin, it must conform to the standards and requirements established by the Insulin Committee of the University of Toronto . . . Insulin Squibb is highly purified, highly stable, remarkably free from pigmentary impurities and proteinous reaction-producing substances . . . Supplied in 5-cc. and 10-cc. rubber-capped vials and in usual "strengths."

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American Medical Association Essentials for An Approved Clinical Pathologist

An approved clinical pathologist should be a licensed graduate of medicine. He shall have specialized in clinical pathology, bacteriology, pathology, chemistry, and other allied subjects for at least three years, and he should be reasonably familiar with the manifestations of disease in the body. The director of a clinical laboratory shall be on full time or have definite hours of attendance, devoting the major part of his time to this specialty. A clinical laboratory is an institution organized for the practical application of the fundamental sciences by the use of specialized apparatus, equipment and methods, for the purpose of ascertaining the presence, nature, source, and progress of disease in the human body.

The following Clinical Pathologists directing private laboratories in California are approved by the Council on Medical Education and Hospitals of the American Medical Association:

Clinical Laboratory of Drs. W. V. Brem, A. H. Zeiler, Roy W. Hammack and G. D. Maner, 657 So. Westlake Avenue, Los Angeles, California.

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These laboratories use standard methods and are fully equipped to make all clinical examinations of recognized value in: Tissue Pathology, Bacteriology, Hematology, Serology, Bio-Chemistry, Kolmer Wassermanns, Kahn test. Medico-legal, Basal metabolism, Blood chemistry, Hormone Test for Pregnancy, Parasitology, Cardiology, Autogenous vaccines, etc.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 20)

Beswick and his wife were arrested in the warehouse, although Mrs. Beswick was not held." (Los Angeles *Evening News,* March 9, 1936.)

"Superior Judge Frank M. Ogden of Oakland yesterday placed Mrs. Mae Brazil, thirty-five, 7908 Holly Street, on probation for five years when she appeared for sentence on a charge of carrying out an illegal operation. Mrs. Brazil had previously pleaded guilty to charges at a preliminary hearing in Oakland Police Court. She was taken into custody after allegedly performing an illegal operation on Mrs. Ruth Johnson of Alameda at her home on January 26." (San Francisco *Chronicle, East Bay Edition,* March 17, 1936.)

"Dr. F. W. Steddom, seventy-nine years of age, city health officer for Los Angeles in 1895 and a member of the Board of Education in 1906, went on trial yesterday in Municipal Judge Faulconer's court on sixteen counts of violating the narcotic laws. According to Deputy City Prosecutor Potter, the physician is accused of issuing ten narcotic prescriptions in bad faith to patients and in six counts with failing to report drug-addict patients to the State Narcotic Division. Doctor Steddom denies the charges and asserts that all the prescriptions were given in good faith and that he is guilty of no wrong. In the complaint filed against Doctor Steddom, it is asserted he prescribed 4,795 grains of morphin for ten patients over a period of one month and thirteen days, the last prescription being given last February 13. . . ." (Los Angeles *Times,* March 14, 1936.)

" 'Dr. Haskell,' herbalist and chiropractor, was arrested yesterday at his American Herb Company offices on the fourth floor of the Porter Building and fined $150 by Judge Grandin H. Miller when he admitted violating the State Medical Act. Haskell, or P. Haskell Knowles, as he is named in court, was taken into custody by Constables Larry Harris and William Condon, and Harry G. Henderson, special agent for the State Board of Medical Examiners. In the complaint sworn by Cecil Goucher of the Board of Medical Examiners, Haskell, or Knowles, was charged with issuing medicinal herbs to patients, in violation of his privileges as a chiropractor. Entering a waiting-room crowded with patients, the officers placed the chiropractor under arrest. Haskell's offices were searched by the constables and the Board of Examiners' agent, and his patients interviewed as to his methods of treatment. He was then taken directly to Judge Miller's court, where he was fined $150 and placed on two years' probation, when he pleaded guilty to violating the State Medical Practice Act." (San Jose *Mercury-Herald,* March 17, 1936.)

"Dr. Lee E. Smith of 1445 Sixty-eighth Avenue was found guilty of reckless driving today at a trial held before Police Judge Edward J. Tyrrell. The case was referred to probation authorities. Doctor Smith will report for sentence on April 2. Doctor Smith was arrested last February 18, after an automobile he was driving collided with another machine operated by H. J. Cummins, twenty-eight, of 2233 High Street, at Foothill Boulevard and Courtland Avenue. Cummins' wife, Ruth, twenty-two, was injured. . . ." (Oakland *Tribune,* March 18, 1936.)

Reports from the Investigation Department, Southern District, relate that on February 5 E. B. Hartman, chiropractor, was sentenced to serve ninety days in the county jail on Count 1 of a charge of violation of the Medical Practice Act and to serve 180 days in jail on Count 2, the sentences to run concurrently. Oral notice of appeal was given and bond set at $2,000 cash or $4,000 surety. Defendant was committed to jail in default of bail. It is said

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that Hartman's attorney, in his argument to the jury, made the statement that inasmuch as a chiropractor was taught obstetrics, and the things with which Hartman was charged, he must, therefore, practice them. The attorney for the prosecution, in his argument, answered that if a chiropractor must practice what is taught in chiropractic schools, it follows that he must, therefore, practice anatomy, histology, etc., and asked how anyone could practice those things. (Prior entries, January and March, 1936.) We are informed by the secretary of the Chiropractic Board that said board has revoked Hartman's license to practice chiropractic.

Reports indicate that Roy J. Bell on February 3, 1936, in the Justice Court at San Bernardino pleaded guilty to a charge of violation of the Medical Practice Act and was sentenced to pay a fine of $100 or serve fifty days in the county jail. Sentence was suspended six months on condition that he discontinue further violation of the law.

Adolph Osterveen pleaded guilty on February 3 in the Justice Court, San Bernardino, to a charge of violation of the Medical Practice Act and was sentenced to serve 180 days in the county jail, suspended one year on condition there be no further violation of the Medical Act and that he leave the county of San Bernardino immediately.

California Tower Crowns Avenue of Palaces, California Pacific International Exposition, San Diego

R. H. Carter on February 13 was reported to have pleaded guilty in the Justice Court of Culver City to violation of the Medical Practice Act and was sentenced to serve 180 days in the county jail, suspended, first, on condition that he pay a fine of $25, and second, that he not violate any State law within one year.

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OXYGEN-CO₂ MIXTURES RESUSCITATING EQUIPMENT
ANESTHETIC MACHINES OXYGEN THERAPY EQUIPMENT

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Excerpts from Federal Food and Drug Bureau Bulletin.—*Investigate Misbranded Wines.*—The adulteration and misbranding of wines continues a fruitful field for federal investigation. During the month just closed, the Food and Drug Administration reports the seizure of 944 gallons of so-called "blackberry type" wine, composed of an artificially colored mixture of water, tartaric acid, imitation flavor and alcohol, 900 gallons of which contained materially less alcohol than stated on the label.

Drugs Seized.—Drugs seized during the month included "Spark'l Rub Alcohol Compound" found to contain isopropyl alcohol instead of ethyl alcohol, and short volume; "Alcothol Rub," labeled as containing 70 per cent alcohol when in fact containing only 2 per cent isopropyl alcohol; "Papine," a compound of morphin and chloral hydrate, found deficient in morphin and containing chloral hydrate in excess of the proportion claimed on the label; "Neurosine," sold under a label listing certain minor ingredients, but omitting mention of the bromids present, although they really constituted the active ingredients; local anesthetics containing materially less procain than claimed; "Ovestrumon," represented as a "stable" glandular product useful in women's ailments, but found upon test to be inert; "Alkavis," consisting of a potassium salt, salicylic acid, plant extracts, glycerin and water, falsely and fraudulently offered as a treatment for the kidneys, liver and blood, and for rheumatism; "Blackstone's Tru Laxative Bromids Quinin Cold Tablets," made of acetanilid, quinin dihydrobromid and aloes, bearing unsupportable claims for coughs and grippe; "Dexene," which was nothing but one-quarter per cent of sulphur dioxid in water, sold as a treatment for diabetes; "Hem-Roid," consisting of plant laxatives, offered for the treatment of piles; "Pneumo-Nox," petrolatum containing menthol, eucalyptol and other volatile oils, sold for the treatment of chest colds, sore throat, irritations of the lungs, croup, cuts, stiff joints, and sore feet; "Tru Lax," a chocolate-coated phenolphthalein laxative (the chocolate was found to be worm-eaten), represented as "nature's true assistant" and "nature's true laxative," and bearing unwarranted claims for the treatment of sleeplessness, sour stomach, jaundice, indigestion, bad breath, gas, headache, loss of appetite, and biliousness; and "Tru Tablets of Aspirin," bearing false and fraudulent label claims for acute rheumatism and other pains of nervous origin, for gout, sciatica, tonsillitis, influenza, lumbago, sore joints and muscles, and toothache.

Fines in Drug Cases.—Fines were assessed as follows in cases involving drug products: S. A. Crisp Canine Company, Blacksburg, South Carolina, shippers of "Sta-Well Condition Pills," and "Crisp's Hot Shot Nerve Sedative," bearing false and fraudulent therapeutic claims for the treatment of diseases of dogs, fines imposed on the members of the firm as follows: B. H. Bonebrake, $10; W. S. Hollifield, $5, and S. A. Crisp, $5; Miller Products Company, Waterloo and Cedar Rapids, Iowa, "Nu-Vita Yeast," the name of which was held to be misleading, as the product was principally corn meal with a barley product and very little yeast, fine $10; Jesse Miller, trading as the Bron-Ki Company, Columbus, Ohio, "Bron-Ki," fraudulently labeled as a treatment for bronchitis and deep-seated chest colds, fine $10, suspended; De Vore Manufacturing Company, Inc., Columbus, Ohio, "Special Treatment for Diabetes," "Antiseptic Capsules," and "Vegetable Compound for Women," carrying unwarranted label claims for diabetes, tonsillitis, laryngitis, quinsy, sore and ulcerated throat and mouth, and women's ailments, fine $10; Harry C. Johnson, trading as F. S. Powers & Co., Crystal Lake, Illinois, "Devonshire's Earth Salts," a mixture of some nine mineral salts offered as a treatment for pneumonia, cancer, diphtheria, typhoid fever, kidney and bowel trouble, appendicitis, intestinal worms and tapeworms, locomotor ataxia, nervous diseases, rheumatism, stomach trouble, skin diseases, malaria, high blood pressure, boils, abscesses, goiter, tumors, stomach ulcers, chills, colds, bronchitis, snake-bites, delirium tremens, diabetes, venereal diseases, heart trouble, sterility in men and women, and other disease conditions, fine $25; Pennex Products Company, Inc., Pittsburgh, Penn-

(Continued on Page 26)

ACCEPTED
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Council on Pharmacy and Chemistry

MEAD'S OLEUM PERCOMORPHUM

Welcomed By Physicians

Rich in Natural Vitamins A and D

Mead's Oleum Percomorphum makes it possible to prescribe natural vitamins A and D in the same ratio as they occur in cod liver oil* — but in drops dosage rather than in teaspoonfuls. Consisting of equal volumes of percomorph liver oil and cod liver oil, this product is so potent that it can be given in 1/100 the dosage of cod liver oil.* Each gram supplies not less than 60,000 vitamin A units and 8,500 vitamin D units (U. S. P.).

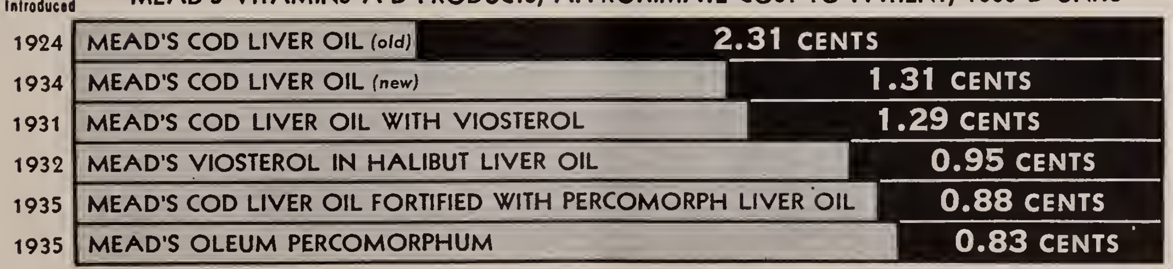
Convenient to Prescribe

Realizing that physicians are accustomed to the decimal system, we have blended Mead's Oleum Percomorphum to a potency 100 times that of U. S. P. cod liver oil, which has a vitamin A content of 600 units and a vitamin D content of 85 units. For physicians who prefer cod liver oil we have also prepared Mead's Cod Liver Oil Fortified With Percomorph Liver Oil (5% percomorph liver oil) having a vitamin content 10 times cod liver oil.* Thus the physician can conveniently prescribe vitamins A and D in any required dosage, in convenient ratio to an acceptable standard cod liver oil.

More Economical Per Dose

The pioneer work done by Mead Johnson & Company in improving the quality of cod liver oil is too well known to need reiteration. The accompanying chart, however, shows how successfully we have striven, all through the depression, to reduce the cost of vitamins A and D to the patient. All factors concerned in the production and marketing of Mead's Oleum Percomorphum are under our control. We are hopeful that by wholehearted endorsement of these new Mead products, the medical profession will make it possible for us, during the next few years, to make the patient's "vitamin penny" stretch still further.

MEAD'S
OLEUM
PERCOMORPHUM
50%



Mead's Oleum Percomorphum, 50%, is available in 10-drop capsules, 25 in a box; and in 10 and 50 cc. bottles. Mead's Cod Liver Oil Fortified With Percomorph Liver Oil is available in 3 and 16 oz. bottles.

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*U. S. P. XI Minimum Standard

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.
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FOR nearly a quarter century CALSO WATER has been detailed to the profession, and some fifteen years ago "California and Western Medicine" saw fit to compliment us on our ethical standards. We are still adhering to this policy. Does it not merit your consideration?

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PHYSICIANS' AND SURGEONS' TELEPHONE EXCHANGE NURSES' BUREAU

(Continued from Page 24)

sylvania, Allaire-Woodward Company, Peoria, Illinois, Savoy Drug and Chemical Company, Chicago, Illinois, the Upjohn Company, Kalamazoo, Michigan, and Sutliffe & Case Company, Peoria, Illinois, substandard pharmaceuticals, fines of $50, $250, $15, $200, and $385, respectively, and, on a similar charge, Hance Bros. & White, Philadelphia, Pennsylvania; placed on probation for one year.

Terminations adverse to the Government included one allegation of shipment of partially decomposed canned mackerel and one of low-fat butter, dismissed by the court without comment; one case alleging shipment of partially decomposed frozen eggs, directed verdict for the defendant because of lapse of time between shipment and sampling, although the eggs were maintained at subzero temperatures throughout; and an allegation of shipment of tankage (a feed) containing less protein and fat than represented on the label, and one of allegedly short-weight honey, dismissed because of the age of the cases.

The National Society for the Prevention of Blindness, Inc.—The National Society for Prevention of Blindness (50 West Fiftieth Street, New York City) has announced the appointment of Mrs. Francia Baird Crocker, R. N., as Associate for Nursing Activities, succeeding Miss Mary Emma Smith, R. N., who resigned to accept the position of Director of Public Health Nursing in the New Mexico Bureau of Public Health. . . .

Since its establishment in 1915, the National Society for the Prevention of Blindness has worked in close coöperation with the medical profession, especially ophthalmologists. The Society's legislative, public education, and research efforts aim at conservation of vision among the large majority of persons who have normal sight and the considerable number of partially sighted persons. Headquarters are maintained in Rockefeller Center, New York City.

A steady reduction in the amount of blindness from ophthalmia neonatorum has resulted from the numerous state laws now in existence which make it compulsory for the doctor, nurse, or midwife to use a prophylactic solution in the eyes of babies at birth; the Society continues to urge this law in those states which have not yet passed it. The establishment of "sight-saving classes" for the education of children with seriously defective vision is stimulated by the Society to communities throughout the country; and, in coöperation with various universities, it sponsors courses for the training of teachers and supervisors of these special classes. The Society works toward the reduction of the eye hazards of industry, demonstrates a technique for testing the eyes of preschool-age children, and strives for conservation of vision in other ways also.

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Modern, reputable stores in

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All Owl Stores have modern and fully equipped pharmaceutical departments.

Industrial Accident Commission of the State of California.—The Industrial Accident Commission, after recently having made a survey of employers in the State of California who are not insured for compensation, has become very much concerned upon finding that a great number of these employers in this State are not protecting their employees by compensation insurance.

Section 29 of the Workmen's Compensation, Insurance and Safety Act provides that every employer shall secure the payment of compensation and that any employer failing so to do shall be guilty of a misdemeanor, punishable by a fine of not more than $500, or by imprisonment in the county jail for a period of time not exceeding six months, or by both.

Every person, firm, voluntary association and private corporation, including any public service corporation, who or which has any person in service under any appointment or contract of hire, or apprenticeship, express or implied, oral or written, and the legal representative of any deceased employer, is an employer under the provisions of the Workmen's Compensation Act.

There are two ways provided by law whereby an employer shall secure the payment of compensation: The first is that by which an employer insures and keeps insured against liability to pay compensation in one or more insurance carriers duly authorized to write workmen's compensation insurance in this State, and among these insurance carriers is included, of course, the State Compensation Insurance Fund. The second means whereby an employer can properly secure the payment of compensation to injured employees is by self-insurance, and this method of insurance is obtained by application to the Industrial Accident Commission and by the filing of a bond or securities in an amount to be fixed by the members of the Industrial Accident Commission.

In addition to the fact that one failing to secure proper compensation insurance is guilty of a misdemeanor, an employer who is uninsured and whose employee or em-

(Continued on Next Page)

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But times have changed, as well as cattle. Now, the therapeutic value of certain gland products is definitely established and each year adds to our knowledge in this important field of therapeutics.

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ABOUT CIGARETTES

IN cases of congestion of some portion of the upper respiratory tract, the safest course is discontinuance of smoking. The next best advice is "Smoke Philip Morris", the only cigarette scientifically proved by independent outside research to be less irritating.★

Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245★
N. Y. State Jour. Med. 1935, 35—No. 11,590
Laryngoscope 1935 XLV, 149-154

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WHEATON, ILLINOIS

(Continued from Preceding Page)

ployees meets with an industrial injury may be further subjected to a 10 per cent penalty based upon the amount of money which is necessary to care for the medical and hospital expenses of the injured employee and of the amount of disability indemnity payments paid to him weekly as compensation.

A further effect of the failure to secure proper compensation insurance by an employer is that any injured employee or his dependents may proceed against such employer by filing an application for compensation with the Commission, and in addition thereto such injured employee or his dependents may bring an action at law against such employer for damages the same as if the Workmen's Compensation, Insurance and Safety Act did not apply, and shall be entitled in such action to the right to attach the property of the employer at any time upon order after the institution of an action in an amount to be fixed by the court so that the payment of a judgment that may be ultimately obtained may be thus secured.

The seriousness of this situation has been called to the attention of Governor Merriam and he has in positive terms stated that it is his desire that the members of the Industrial Accident Commission immediately proceed to enforce the above provisions of the Workmen's Compensation Act, thereby giving to the working people of the State of California all of the protection to which they are entitled under the law.

Therefore, in accordance with the law and the policy of the Governor, the Industrial Accident Commission is notifying all of its deputies and agents in the field to start and continue a drive until all employers subject to the Workmen's Compensation, Insurance and Safety Act carry compensation insurance for their employees.

In making this survey the attention of the Commission has further been called to the fact that there are a great number of employers engaged in agricultural pursuits in the State of California who are not insured. Of course, it will be understood that in the case of those farmers and

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Offer facilities for the Care and Treatment of MENTAL PATIENTS: 195 beds (155 neuropsychiatric; 40 medical-surgical-maternity). Staff of psychiatrists, surgeons, internists. Psychotherapy. Permanent records. Clinical Laboratory. Surgery. X-ray. Graduate nurses. Dietitian. Masseuse. Hydrotherapy. Occupational therapy. Golf, tennis, handball. Ethical standards. Approval by the American College of Surgeons.

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agriculturists who indicate an intention of rejecting the Act and who do post notices of such rejection in conspicuous places upon their premises serve notice upon their employees that they are not covered by compensation insurance.

The Commission is firmly determined to fully and positively put into effect the provisions of the Workmen's Compensation, Insurance and Safety Act concerning non-insurance, and very recently it was reported by the Legal Department of the Commission that, of 843 cases on non-insurance called to the attention of that department of the Commission, more than six hundred of the recalcitrant employers promptly took out the necessary insurance and the remaining two hundred or more will either be compelled to do the same or be subjected to prompt and severe prosecution in the proper courts of the State.—T. A. Reardon.

The Gradation of Official Physicians in Rumania.—A new act distinguishes five groups in the public service, according to whether they are concerned with hygiene, healing, laboratory work, administration in cities or forensic medicine. Specialists in any branch of medicine must produce evidence of having studied their branch for at least four years after graduation. The law recognizes as specialists those who, before its proclamation, were university professors, lecturers, assistants, or senior hospital physicians. Private physicians will be recognized as specialists only if they can supply documentary evidence of having worked in their specialty for at least five years.

In the public service the following ranks are established: junior physician, titular physician, physician-in-chief, principal physician, inspector-general physician, and consulting physician. As a rule, every one must begin his public career as a junior physician and must spend two years in this capacity. If by then he is unworthy he remains in the same rank for a further year, and if he still does not deserve advancement he must leave the public service. In exceptional cases, a man may join the service as titular physician or physician-in-chief if he has served in a private hospital for two years and four years respectively and has especially good qualifications. Advancement is not certain in every case, but takes place according to merit. One must, however, spend at least two years as junior and four years as titular physician. The rank of inspector-general is reserved for the most prominent physicians and appointment is subject to the recommendation of a special commission. Their total number cannot exceed thirty in the whole country. If an inspector-general has shown particularly useful and conscientious activity, he receives on retirement the title of medic consilier sanitar. The new law considerably raised the grades. The old law knew only four grades, each promotion bringing a 15 per cent rise of the salary. The new law is more liberal and provides five grades, each with 25 per cent rise, and the total increase of 125 per cent, together with several ad-

(Continued on Next Page)

For Acidity and Allied Conditions, we suggest
ADAMS SPRINGS MINERAL WATER

● MANY physicians recommend the water in conjunction with the treatment of stomach, liver and kidney trouble.

ADAMS MINERAL SPRINGS is one of the seven known iron and maganese bi-carbonate springs in the world, and the only one in Western America.

It is not a cure-all, but it overcomes acid excesses in the body, and is a very mild but wonderfully effective eliminator. The bowels function without spasm, the kidney output is greatly increased, and there is *marked* drainage of bile from the gall bladder and liver.

There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

We will be pleased to cooperate in any way whatever, and samples of water are yours for the asking.

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SHOWING MAIN CONSTITUENTS
By PROF. SYDNEY A. TIBBETTS, *Berkeley*

MANGANESE	1.3 parts per million
IRON	12.5 parts per million
CALCIUM	173.3 parts per million
MAGNESIA	339.3 parts per million
SODIUM	365.0 parts per million
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CARBONATE	1551.4 parts per million
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(Continued from Preceding Page)

ditional sources of income, insures a comfortable livelihood. At the age of 60, every physician may be pensioned on the recommendation of the administrative commission. At 62 all must retire without regard to years of service.

The new law settles also the troublesome question of dental practice by declaring that dentistry can be carried on by duly qualified doctors or dental technicians who have specialized in stomatology. Those dental technicians who gained their right to practice before 1923 may continue their work without disturbance. Those whose license was not recognized by the revision in 1924, if over forty-two years of age, will have to pass qualifying examinations this year, while those under forty-two will have to attend a regular course, lasting one year, in dental technique and pass a final examination. Only those technicians are justified in applying for admission to the courses who before 1923 had already eight years' practice—two years as apprentices and six years as assistants in laboratories. Those who have passed matriculation examination in a secondary school and attended some foreign high school for dentistry, and obtained a diploma after four years' study, may carry on dental practice in Rumania without further notice. Dental technicians and also dental surgeons are not allowed more than one consulting room.

Diathermy, quartz light, x-ray, and ultra short wave apparatus may be owned and used only by qualified physicians. Likewise, electrolysis and electrocauterization should be applied by physicians, and this exclusively medical work must not be done by barbers, masseurs, manicurists, chiropodists, or cosmetic institutes.

The new law puts a stop to brothels and all undertakings connected with the keeping of prostitutes. Henceforth licensed women will have to present themselves twice a week for medical examination—in towns and cities at the venereal dispensaries, in small towns and villages by the parish doctors.—*Bucharest Letter, Journal of the American Medical Association.*

The Hippocratic Oath.—France does not like ceremonies, even if they include in the ethics of some profession an element of history, tradition, and coöperation. The oath of Hippocrates, for instance, which was in former times a solemn and sacred introduction to medical life, was suppressed after the French Revolution in many of the French faculties, although maintained in some others. In the Faculty of Marseilles, which is one of the oldest of the French universities, having succeeded the ancient faculty of Aix, the candidate, after the discussion of his thesis, and facing the assembled body of professors, stands up and, with right hand raised, utters the oath of Hippocrates. This custom has just been restored in the University of Paris, and this restoration, initiated by Dean Roussy, must be considered one of the many measures demanded by the best part of the profession in order to maintain a high standard of morality among the body of physicians, young and old.—*Paris Correspondent, Journal of the American Medical Association.*

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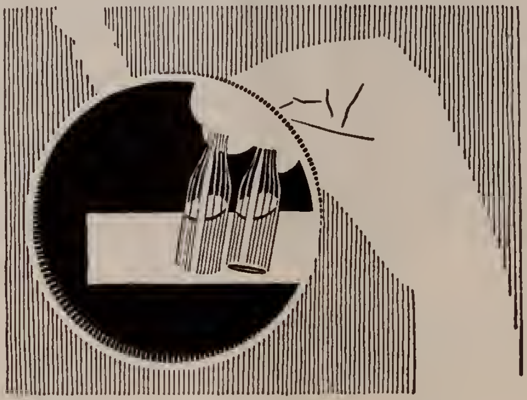

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WESTERN MEDICINE

OFFICIAL JOURNAL OF THE CALIFORNIA AND NEVADA MEDICAL ASSOCIATIONS

Vol. 44 APRIL, 1936 No. 4

SALUTATION FROM PRESIDENT PEERS

Californians have been blessed beyond most of the rest of the world by the lavishness with which Nature has endowed our wonderful State with an astonishing variety of great natural wonders. And, as though the beauty and grandeur of towering mountains, great valleys, unsurpassed forests, spacious harbors and magnificent marine views were not a sufficient heritage, Nature has given California a climate equalled by no other country. Coronado and San Diego are situated in a location noted for scenic and climatic advantages. While, in addition to the natural gifts so bountifully bestowed by Nature upon that region, the beauties of Coronado and San Diego have not been spoiled by the works of man.

This year, besides other appeals, San Diego furnishes the extra attraction of an International Exposition in which the California Medical Association, the American Medical Association, and other scientific bodies have installed very attractive and worthwhile exhibits; an entire building with 22,000 square feet of space, having been offered to and accepted by the California Medical Association for a Medical Science Exhibit.

To this beautiful section of California, during May 25 to 28, will come medical men and women from all parts of California to attend the Sixty-fifth Annual Convention of the California Medical Association. A wonderful program of great scientific value and interest has been provided by your Committee on Scientific Program.

Your officers and councilors extend a most cordial invitation to every member of the California Medical Association to visit Coronado and San Diego on May 25 to 28, and enjoy the beautiful scenery, the delightful climate, the great Exposition, the scientific program, and the social contacts with your brother (and sister) practitioners.

Come!

Cordially yours,

ROBERT A. PEERS

California and Western Medicine

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CALIFORNIA MEDICAL ASSOCIATION

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Address editorial communications to Dr. George H. Kress as per address above; advertising and business communications to Secretary-Treasurer, Dr. Frederick C. Warnshuis, also at above address.

EDITOR . . . . GEORGE H. KRESS

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this journal.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS[†]

CORONADO ANNUAL SESSION: MAY 25-28

Annual Session of California Medical Association Only One Month Distant.—"Time marches on" and, almost before we may realize it, the sixty-fifth annual session at San Diego will have convened, adjourned and taken its place in the records of events that have been.

In this issue are printed the programs of the general meetings, the twelve scientific sections, the Woman's Auxiliary, and also the order of business of the House of Delegates, together with other activities or features, such as scientific and commercial exhibits, all of which will be in evidence at the Hotel del Coronado in San Diego for this year's annual session, officially announced to commence on Monday, May 25, and to carry through Thursday, the 28th.

On Sunday, the Cancer Commission and pathologic programs will be given. On that day, too, the first annual conference of standing committees with State Association officers will take place, and also the first meeting of the State Council.

The business, scientific and entertainment programs, as given on pages 305 to 329, reveal the wide scope of the Association's work, and a careful inspection of the many presentations should assure the intense interest which they will necessarily have for all members who register.

* * *

"California Medical Association Day" at the Exposition, Tuesday, May 26.—Mention has already been made, on page 76 of the February issue of California and Western Medicine, of the splendid exhibits in the Hall of Medical Science of the San Diego Exposition. A letter received from Dr. Lyell C. Kinney, ex-president of the California Medical Association, states that on Sunday, March 15, more than 9,000 persons visited those exhibits which, at that time, had been only partially installed—showing clearly the interest taken by the laity in all such public health demonstrations when properly presented.

Tuesday, May 26, has been designated as "California Medical Association Day," and all signs point to a gathering of medical men and women on that occasion that will prove a peak attendance in annual session records.

* * *

Hotel Reservations Should Not Be Delayed. The last two issues of this magazine mentioned the limited hotel accommodations then still available. The Hotel Del Coronado has for some time been reserved to full capacity, and now the San Diego hotels alone must be depended upon to care for the great gathering of medical visitors to be expected. For a list of these San Diego hotels, see page 209 of the March issue.

[†] Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column, which follows.

If, therefore, you are not already enthused regarding the numerous attractions at the San Diego meetings, and decisive as to your own attendance, scan the programs in this issue, and ask yourself if you can really afford to stay away?

MEMBERS OF C. M. A. STANDING COMMITTEES TO MEET AT CORONADO: IMPORTANT THAT ALL COMMITTEE MEMBERS SHOULD ATTEND THE CONFERENCES

History of the Present Constitution and By-Laws of the California Medical Association.—The present constitution with by-laws of the California Medical Association, after a four-year controversial career in their forming, were adopted by the House of Delegates at the San Diego annual session of 1929. The final form, approved without a single dissenting vote, was based on the draft prepared by a special committee appointed in December, 1926, by Council Chairman O. D. Hamlin. Both the previous constitution and by-laws, and the first draft of the proposed revision as presented by the special committee, were printed on pages 244-258, in the CALIFORNIA AND WESTERN MEDICINE of August, 1927.

* * *

The Provision for "Standing Committees."—The special committee on revision of by-laws, in its transmittal letter to the Council of March 30, 1927 (given on page 248 of the JOURNAL for August, 1927), stated that, "In an association as large as that of California, it is very necessary that a practical, centralized, elastic method of organization shall exist, if best results are to be attained"; and in the proposed revision this thought was constantly kept in mind.

Hence, one of the important inclusions in the first draft of the by-laws, adopted in 1929, was contained in "Chapter VII—Committees," and provided for "standing" committees; the previous constitution and by-laws containing no stipulations concerning committees, other than the executive and program committees.

The special committee felt that a group of standing committees, of sufficient number and nature to cover practically all major activities that might come up in organized or scientific medicine, could be of great aid in the further development of the California Medical Association, by making it possible to carry out, in harmonious and efficient manner, those policies to which the House of Delegates of the Association had given its sanction. Through the elimination of a large number of previously existing special committees, that "came and went," the succeeding years have demonstrated the value of the proposed changes; even though the end-results have fallen considerably short of what was hoped could be attained.

* * *

California's Size a Drawback to Committee Conferences.—If California were a state of lesser geographical area than is contained in its almost imperial domain covering a length of 800 miles and a breadth of 200 miles, the members of the standing committees would have been able to work to much better advantage than has been the case. In short, because of the great distances to be covered by members of a committee, it has been almost impossible to secure meetings; and the Association was not in position to pay the railroad and other expenses involved by having the members of the fifteen standing committees meet with one another once or more yearly, to plan and carry on their work as outlined in the by-laws.

* * *

At San Diego, on March 24, Conferences of Standing Committees Will Be Held.—To overcome these disadvantages, it was proposed, at the March 7 meeting of the Executive Committee, that the Association make an effort to bring together the members of the standing committees for preliminary conference at San Diego, on Sunday, May 24. Association Secretary Warnshuis will send to all members of standing committees additional information concerning the plans. The secretary's minutes of the Executive Committee action read as follows:

"Editor Kress presented a recommendation that the Secretary arrange for a conference of chairmen and committeemen of all standing committees and special committees, for the purpose of becoming more intimately acquainted with the problems of the Association, and for the purpose of making recommendations (on Sunday, May 24, 1936, at Coronado, at 2 p. m.); and that the President and the Secretary be in charge of this Conference; and that notice be sent to the chairmen and members of each committee urging their attendance; and that the Council appropriate a reasonable sum to defray the hotel expense for one extra day for those attending this conference. Carried."

* * *

Every Member of a Standing Committee Should Be at Coronado on May 24.—It goes without saying, therefore, that members of standing committees should show their interest in the Association's work, and a recognition of their responsibilities as committeemen, by being present at this year's first annual session. With the conference meeting on Sunday (for a preliminary discussion of their problems), and contacts and exchange of views on succeeding days, it should be possible for the members of each and every committee to allocate among themselves their duties, so that active studies and work may be energetically carried on during the coming year. If the program materializes as the Council of the Association hopes, the reports of next year's annual session will show real progress in committee work.

JOSEPH POMEROY WIDNEY, A.M., M.D., D.D., LL.D., FOUNDER OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION; WHO, AT THE AGE OF 95, STILL CARRIES ON

A Biographical Sketch of Special Interest to California Physicians.—In referring to the absorbing sketch of Joseph Pomeroy Widney, M. D., founder of the Los Angeles County Medical Association, printed in the Lure of Medical History department, on page 292, two thoughts come to our mind:

First, whether there is in the United States a single medical society, which today has living, at the ripe age of ninety-five, a founder, who is still active at work as an author—with one book added to his list during the last year, and another soon coming from the press; and,

Secondly, whether, among the hundreds of county medical societies in the United States, there is still another able to present, as its founder, a member of the medical profession, who, in seventy years of strenuous work after leaving medical college, has come to have to his credit so unusual a record of professional and civic service such as can be claimed by Doctor Widney.

Through affiliation with the medical school founded by Doctor Widney, it has long been the privilege of the editor to be quite aware of this colleague's place in the medical life of Southern California; and on more occasions than one, he has seriously reproached himself for not having secured some of the valuable historical information concerning medical events of former days, which only Doctor Widney could impart. It is, therefore, a real satisfaction to be able to present, in this issue, the first part of Doctor Widney's life story, compiled by friends, after a recent interview.

* * *

Doctor Widney's Many Services to Profession and State.—The record of Doctor Widney's broad vision and achievements makes a fascinating story, even though briefly outlined, from a perusal of which every member of the California Medical Association may truly profit, as one always does in contemplating any life of such consistent service to both fellows and race.

Certainly every member of the Los Angeles County Medical Association should read the story of this colleague who brought that organization into existence, and who, in thus adding one more to a large list of honors, has doubly honored the Association as its founder-sponsor: a physician who received his medical degree in California as long ago as 1866, and whose subsequent life career has been so full and fruitful that even in California, where all things seem possible, it stands out, in what one may well term "conspicuous and splendid isolation."

The members of the California Medical Association, then, extend their greetings and good wishes to Dr. Joseph Pomeroy Widney, a still-surviving colleague who, in these last seventy years, has served so faithfully and also greatly honored his profession. Our heartfelt wish to him: That his days, still ahead, may be as full of meaning and joyful service as those of the eventful years gone by!

BASIC SCIENCE LAW OF STATE OF WASHINGTON: INTERESTING STATE SUPREME COURT DECISION

Purpose of Qualifying Certificate (Basic Science) Laws.—Nine years ago, on page 525 of the October, 1927, issue of California and Western Medicine, appeared the first of a series of editorial discussions on so-called basic science laws, in each of which was emphasized the value of such legal enactments as a means of protecting the public health by providing mandatory legal provisions whereby healing-art practitioners, before being licensed to practice, should also be required to give evidence that they possess, in addition to purely professional attainments, adequate knowledge of certain basic or fundamental sciences.

* * *

The First Basic Science Laws of the United States.—Attention was called to the first law of this nature, that of Wisconsin, which was enacted on June 12, 1925, and of a similar act passed by the State of Connecticut, which became operative some seventeen days later. Included in the group of seven other commonwealths which have passed such laws since 1925, is the State of Washington; and it is concerning a recent decision by the Supreme Court of that state that the comments below are made.

* * *

Washington Supreme Court Rules that Chiropractors Cannot Claim Basic Science Act Exemption.—The action at issue, which recently came before the Supreme Court of the State of Washington, was on an appeal from the King County Superior Court, wherein a chiropractor, not licensed as such in Washington (and not eligible to chiropractic licensure, unless previously qualified through a basic science certificate), claimed, among other contentions, that to require him

> ". . . to pass an examination in subjects [those of basic science: anatomy, physiology, chemistry, pathology, and hygiene], which have no relation whatever to the functions of chiropractic healing, would be a denial of liberty and of due process of law and, therefore, unconstitutional and void."

The opinion of the Supreme Court stated:

> ". . . it cannot be doubted that no one has a natural or absolute right to practice medicine or surgery, and that the state may, under its police power, regulate within reasonable bounds, for the protection of the public health, the practice of medicine and surgery by defining the qualifications one must possess before being licensed to practice the same; and that a chiropractor is deprived of no constitutional right by being required, before receiving a certificate to practice his profession, to have adequate knowledge of the subjects laid down by the statutes of this state."

* * *

Opinion of the Washington Supreme Court Is Printed in This Issue.—The full opinion of the court appears on page 349 of this number. Because a qualifying certificate (basic science) law has been advocated for California, the decision of the Supreme Court of Washington is of importance. It is to be hoped, therefore, that members of the profession in California who are in doubt concerning the need of such legislation will take the time to read this recent opinion. The proposed California qualifying certificate, as discussed at the recent conference of state officers and county society secretaries, was commented on in last month's issue of California and Western Medi-

CINE on page 221. Readers who are interested in the subject may find the remarks there printed also worthy of perusal. As then stated, such a law to be of value in California must be passed by initiative vote of the electorate; but because of amended statutes for registration enacted by the 1935 Legislature, it will not now be possible to present to the voters of California a qualifying certificate law until the state election of November, 1938.

The basic science laws which to date have been enacted by other commonwealths all attest to the great value of this type of legislation, especially in states having "multiple examining boards," of which California is one.

KERN COUNTY HOSPITAL CASE DECIDED

Petition of Kern County Supervisors for Hearing Before Supreme Court Denied: Patients Able to Pay Can No Longer Be Admitted to County Hospitals.—The decision of the District Court of Appeal for the Fourth Appellate District permanently enjoining the admission of non-indigent patients to the Kern General Hospital, was made the present law in California when the Supreme Court, on March 30, 1936, denied the petition for a hearing of the Kern County Supervisors, supported by *amici curiae* representing the supervisors of the counties of Santa Barbara, Solano, Shasta, Calaveras, Colusa, Sutter, Stanislaus, San Luis Obispo, Tehama, Yolo, and San Joaquin.

In its decision the Appellate Court defined indigency in a manner that may require further interpretation. We suggest that the opinion, which is reprinted in full on page 189 of the March number of CALIFORNIA AND WESTERN MEDICINE, be once again carefully read.

If the petition had been granted it would have been necessary to argue the case once again and the Supreme Court could have come to any conclusion that it considered to be required by the law. The effect of the denial by the Supreme Court of the petition for a hearing is that the decision of the District Court of Appeal for the Fourth Appellate District is final and is the present law in this State on the subject of the powers of boards of supervisors of counties with respect to the admission of patients to county hospitals.

It is noteworthy that the District Court of Appeal decided that the admission of patients able to pay the cost of private hospitalization into county hospitals is contrary to Article IV, Section 31, of the Constitution of the State of California. The Court reasoned that to hospitalize patients able to pay the cost of private hospitalization would amount to a gift of public funds to private individuals. The foregoing section of the Constitution forbids the State or any political subdivision of the State to make a gift of public moneys to any private individual. Thus, it is clear that the reasoning of the opinion of the District Court of Appeal forbids not only boards of supervisors to admit patients into the county hospital who are able to pay the cost of private hospitalization, but also forbids the legislature to enact any statute purporting to authorize boards of supervisors so to do, for the legislature as well as county boards of supervisors is bound by the Constitution.

Thus the long efforts of the taxpayers* of Kern County, including physicians and hospitals, to stop this use of public funds, have succeeded. The California Medical Association, recognizing the destructive effect upon medicine and hospitals in California of any extension of public hospitalization to patients able to pay for care, has assisted whenever possible, and is gratified at the success and grateful to those whose efforts brought it about.

ON THIS AND THAT

Danger of Overdoing Vitamin Therapy.—In our March issue, on page 149, Professor Chauncey D. Leake, of the department of pharmacology of the University of California Medical School, sounded a needed warning on the dangers of indiscriminate and indefinite use of vitamins. The fact that a death has already been recorded in California, presumably because of improper vitamin therapy, should make physicians willing to reconsider the entire subject of vitamins; and this suggests, also, that whenever possible, the public should be cautioned to accept with hesitancy many of the bold and extreme promises concerning the value of vitamins so greatly exploited in the last several years in lay periodicals and the press. We are sure that Doctor Leake's article will be followed by reports in medical journals from the pens of other observers which will add to the knowledge concerning the potency of vitamin principles, and thus favor a more scientific usage and dosage.

* * *

Cancer Studies in California.—About five years ago two members of the California Medical Association, Doctors Walter B. Coffey and John D. Humber of San Francisco, read a paper on the treatment of cancer with an aqueous extract of the suprarenal gland; and when the article was printed in the September, 1930, issue of CALIFORNIA AND WESTERN MEDICINE, it caused much comment, both for and against what was advocated.

One of the indirect results of the discussion at that time was the authorization by the California Medical Association for the formation of its Cancer Commission, which, in more recent years, has brought to publication a notable series of articles on cancer, compiled by members of the Association and received with much favorable comment, both within and without the State.

The March, 1936, issue of the JOURNAL, page 160, presented a report from Doctors Coffey and Humber on 7,513 advanced cancer patients who had been under clinical observation during the last five years. For the same period of time, that amount of clinical material (which passed through two California clinics), is without doubt far in excess of the number of similar types of cancer cases in any two other clinics, either at home or abroad. The statistical record on the results from the therapy used, in view of the recorded beneficial effects (as noted on page 178 in the March issue), suggests—whether one does or does not agree with the authors, on their points of view concerning the constitutional nature of cancer, is perhaps less important—that such extracts are worthy of careful consideration.

---

* The case was commenced by Doctors Goodall, McNamara, Cuneo, Long, Brown, Gundry, Compton, Moore, Fox, and McLain, as taxpayers of Kern County. They were represented by Attorney Alfred Siemon of Bakersfield, the law firm of Finlayson, Bennett & Morrow of Los Angeles, and Attorney Hartley F. Peart, General Counsel of the California Medical Association.

A scourge such as cancer, which, up to the present time has given little favorable response to the many methods of attack launched against it, offers a field for scientific study and possibilities that makes all honest endeavors to overcome this malignancy worthy of careful consideration. Doctors Coffey and Humber, in their suggestive paper, state that their percentage of patients still living at the end of five years measures up to and even exceeds the average to the credit of some of the other accepted methods of cancer treatment. Since then, when other therapy seems to be contraindicated, these investigators offer licensed physicians an opportunity to use and try out the treatment of cancer with an aqueous extract of the suprarenal gland, it would seem permissible to turn to the extract they have prepared. With a large number of independent observers keeping careful check on the results, the value of this new mode of procedure could, in proper time, be determined.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 330.

EDITORIAL COMMENT[†]

THE THERAPEUTIC USE OF CONVALESCENT SERUM IN POLIOMYELITIS

Although many authors have cast doubts on the value of convalescent serum in the treatment of poliomyelitis, it must be frankly admitted that the case for or against this form of biologic therapy has not been made, despite vociferous argumentations. Since it is quite problematical that in the near future an active method of immunization will be developed against a disease which is conditioned by unknown and uncontrollable host factors, the serum treatment should not be discarded without further investigations. That it is not such a useless procedure is indicated by the experiences collected during the 1934 epidemic in Denmark.[1]

Percentage of Paralyses in Relation to the Day on Which 2,992 Patients Were Given Serum

Beginning of the Meningeal Stage Before Treatment	Serum-Treated Cases		Cases With Paralysis			
	Number		Number		Per Cent	
Less than 1 day	802	2,367	33	127	4.1	5.36
1 day	913		50		5.5	
2 days	652		44		6.7	
3 days	283	625	48	110	17.0	17.6
4 days	125		15		12.0	
5 days	78		11		14.1	
6 days	50		9		18.0	
More than 6 days	89		27		30.3	
Total	2,992		237		7.9	

Approximately 4,500 cases in the preparalytic and paralytic stage were hospitalized. A committee appointed in November, 1934, collected a great deal of information and issued a report on the salient features. It was published as an editorial in the *Ugeskrift for Laeger,* Vol. 97, pp. 837-841, 1935.

The Danish Commission recommends as early admission to hospital as possible, and a residence in the hospital of at least three weeks. Then prompt serum treatment in the hospital, with an average dose of one cubic centimeter per kilogram bodyweight. *It is emphasized that repetition of an injection—if necessary, a larger dose—is imperative on the slightest sign of progress of the disease.*

The donors of the serum were paralytic, aparalytic and abortive cases of poliomyelitis. The paralytics were bled on an average on the twenty-ninth day, the aparalytic cases on the twenty-sixth day, and the abortive cases on the thirteenth day after the onset of the disease. Nearly 80 per cent of all the patients admitted to a hospital were given serum by intravenous or intramuscular route. As a rule, the serum was reserved for the cases aparalytic at the time of the administration. No final conclusions could be drawn as to the efficacy of the serum. The data summarized in the above table, which shows the frequency with which serum-treated patients developed paralysis, suggest that the treatment played a significant part in preventing paralysis.

Convalescent serum was not used prophylactically. However, a concentrated hyperimmune horse serum was used in two soldiers' camps. In one of them all the five hundred soldiers were given five cubic centimeters of the horse serum intramuscularly; in the other camp, only about half the soldiers, or two hundred, were treated in the same way. Since no cases occurred in the treated or untreated group, the results were negative.

Hooper Foundation,
University of California.

K. F. Meyer,
San Francisco.

[†] This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

[1] Jensen, Claus: Proc. Roy. Soc. Med., 28:1007, 1935.

MODERN TESTS OF KIDNEY FUNCTION

It is difficult to believe that prior to 1912 there was no adequate clinical test available to determine the status of kidney function. The world owes a great debt to Rowntree and Geraghty, therefore, for the phthalein test. This method still is very satisfactory, and serves the purpose for the physician and the hospital where laboratory equipment and facilities are limited, where quick results are desired, or when a check-up of other tests of renal function becomes necessary.

The phthalein test is carried out as follows: About one hour before the test the patient is given from 400 to 600 cubic centimeters of water. One cubic centimeter of a specially prepared solution, containing six milligrams of phenolsulphonephthalein, is injected either intravenously or intramuscularly, preferably in the lumbar muscles. At the end of one hour (in case of intravenous injection) or two hours and ten minutes (two hours for excretion and ten minutes for the absorption of the drug in case of intramuscular injection), the urine is collected. It is made basic with 10 cubic centimeters of 15 per cent sodium hydroxid, diluted to one liter, and the percentage of phthalein excreted is determined by comparison with the standard, in a suitable colorimeter (*e. g.*, colorimeter Duboscq or the Dunning colorimeter).

The normal excretion of phthalein is from 40 to 60 per cent for the first hour, and from 20 to 30 per cent for the second hour (the same figures hold true for the first and second half-hours in case of the intravenous injection), although in many instances the lower normal limit (total) appears to be 50 per cent. In children the usual output is 10 per cent higher. Also the time of appearance of the dye in the urine is noteworthy. In normal function of the kidney it is from four to five minutes, following the intravenous injection.

Attempts to give the phthalein elimination a special significance, as an index of either tubular or glomerular activity, have not been entirely successful. With the study of the excretion of such substances as water, urea, and salt (which are the natural products of metabolism and are continuously eliminated by the kidney, and whose excessive elimination or retention can now be more and more definitely interpreted in terms of renal disturbances), the phthalein test has been superseded.

Studies of renal excretory products furnish a basis for deductions that lead to a more rational therapy, and to greater advances in clinical medicine than a test with a more or less mechanical interpretation can do. The phthalein test is of particular value to the physician who has not specialized in the diseases of the urinary tract and who wants to know, in numerical terms, to what degree the kidney is functioning satisfactorily.

Modern tests for renal function that deal with the normal excretory products of the kidneys can be divided into two groups: one of these is of recent development (by Addis and Van Slyke) and constitutes a method by which the total amount of functioning tissue in the kidneys may be determined; the other group of tests aims at determining whether the kidneys, under customary conditions of diet, activity, etc., are capable of maintaining the blood and tissues free from the accumulation of urinary excretory products.

The amount of functioning renal tissue may be determined by the "blood urea clearance" of Van Slyke, which promises to be one of the most important tests for kidney function at our command, as it is now recognized that the usual test for renal function may indicate impairment only when 50 to 60 per cent of the renal tissue has been put out of commission, while the Van Slyke test detects functional impairment when the first half or less of the kidney substance is rendered inactive (or lost).

The necessary data for determining the blood urea clearance, as a measure of renal efficiency, C, are as follows: (1) the concentration of urea in the blood, B; (2) the concentration of urea in the urine, U; and (3) the volume of urine in cubic centimeters excreted in one minute, V. This test is expressed by the formula: $C = \frac{U}{B}\sqrt{V}$ The excretion rate observed with the average normal blood urea clearance is what would be obtained, if 75 cubic centimeters of blood per minute passed the kidneys, and all its urea were excreted.

Decrease in the volume of blood cleared of urea per minute in pathologic conditions must be due to one of two causes: either the volume of blood per minute passing through the kidneys is diminished, or the proportion of its urea removed during the passage is less than normal.

The tests which determine the ability of the kidney to prevent the accumulation of urinary excretory products within the body give an answer to the question of how well the remaining renal tissue can cope with the dietary and metabolic burden imposed upon it.

The blood chemistry has contributed a great deal to the better understanding of Bright's disease. The fact that albuminuria, increased arterial pressure, and even certain forms of uremia, often occur without an accumulation of urinary excretory products within the body, made it clear that "nephritis" is not solely (nor even predominantly) characterized by diminished kidney function. Urea nitrogen, creatinin, and uric acid are considered most important substances in the blood to be studied for testing the kidney function: as renal insufficiency develops, a successive retention of urea, uric acid, and, finally, creatinin within the blood takes place. The blood urea nitrogen has been, and still is, the substance most generally tested. Its direct estimation, as well as its relation to the urea in the urine, as Ambard's constant, as the blood urea clearance test of Van Slyke's, etc., has proved to be very valuable, being very sensitive in detecting the earliest signs of kidney disease and having a definite diagnostic significance. Clearance values above 75 per cent of normal usually suggest no impairment of renal function. Values between 75 and 50 per cent should be considered in the doubtful range. Below 50 per cent of normal always implies decreased renal efficiency.

Ambard found out that elimination of at least certain substances is carried on by the kidneys, according to definite laws which are capable of mathematical expression, by a formula known as Ambard's coefficient or constant: $K = \dfrac{Ur}{\sqrt{D \times \frac{70}{wt.}} \times \sqrt{c/25}}$ where *Ur* is grams of urea per liter of blood, *D* is grams of urea excreted in twenty-four hours, *wt.* is weight of patient in kilograms, *C* is grams of urea per liter of urine. The normal value of the Ambard coefficient is between 0.07 and 0.09. In impaired function with an ability of the kidney to eliminate in proportion to the concentration of urea in the blood, there is a rise in the coefficient in proportion of the degree of renal insufficiency. Values of 0.09 to 0.12 indicate slight impairment; 0.13 to 0.2, a moderate degree of impairment; and above 0.20, severe renal impairment.

1025 Story Building.

S. I. Movitt,
Los Angeles.

LOCAL INJECTION OF PROCAIN: IN THE DIAGNOSIS AND TREATMENT OF DERANGEMENTS OF CERTAIN JOINTS

Pain is one of our most significant criteria in diagnosis. It follows that the temporary elimination of such pain by the local injection of procain has great possibilities in differentiating various disturbances of joints.

The occurrence of painful inflammatory changes, with or without calcification, in the subdeltoid bursa is often accompanied by the sudden loss of the power to initiate abduction of the shoulder, due to a reflex inhibition of the supraspinatus muscle. When the onset of symptoms is associated with injury, the diagnosis of rupture of the supraspinatus tendon is suggested. Because such a rupture, if complete, demands early surgical repair, it is imperative to distinguish actual breaks in the continuity of this tendon, from inflammatory changes in the same region. The injection of 10 to 15 cubic centimeters of one per cent procain hydrochlorid into this bursa [1,2] will eliminate the pain and reflex supraspinatus inhibition caused by any inflammation of the bursa, and will permit immediate active abduction of the shoulder through its normal range. This active painless exercise of the shoulder overcomes adhesions in the bursa and frequently affords permanent relief from symptoms. In other cases the injection of procain into the bicipital groove, with the disappearance of pain, which formerly occurred on certain movements of the shoulder and elbow, may confirm the suspected diagnosis of inflammation or "slipping" of the tendon of the long head of the biceps. Marked improvement or cure was obtained following the injection of procain into the bicipital groove in three out of four patients whose symptoms were localized to this region. Schulhof [3] has relieved "painful shoulders" by the slow injection of 30 to 50 cubic centimeters of warm one-half per cent solution of procain into the subdeltoid bursa.

Coste [4] prefers to inject the supraspinous and circumflex nerves with procain in the treatment of peri-articular arthritis of the shoulder. Following anatomic studies, which showed the richness of articular ligaments in sensory-nerve endings, Leriche [5] advocated the infiltration of these ligaments with procain in functional post-traumatic articular disturbances after sprains or fractures. The anesthesia of the joints thus produced also permits their mobilization following arthroplasties or arthrotomies.

The injection of 25 cubic centimeters of one per cent procain into the region of the sacro-iliac joint, following the oral administration of three grains of sodium amytal, can be used to differentiate a sprain or arthritis of this joint from similar involvement of the lumbosacral joint, and from pure sciatic neuritis. A needle three inches long is inserted at a point over the midline of the sacrum, at the level of the two posterior superior iliac spines, and is directed laterally at an angle of forty-five degrees with the skin. By such an insertion the point of the needle passes between the lateral portion of the sacrum and the overhanging posterior superior iliac spine, and reaches the posterior margin of the sacro-iliac joint. The posterior sacro-iliac ligaments are infiltrated with procain, some of which may reach the sacro-iliac joint. Following the injection it is usually possible to manipulate the sacro-iliac joint quite freely by straight leg flexion of the hip. In addition to the relief obtained from such manipulation, some benefit probably results from the distention and stretching of the sacro-iliac ligaments due to the injection of the solution.

Doubtless many other applications of the principle of the injection of procain for diagnosis and treatment will suggest themselves.

350 Post Street.

Keene O. Haldeman,
San Francisco.

The joy of creation is so exalted that it has been called divine. Next to it is the joy of coming to know what has been wrought and thought by the most highly endowed members of the race. Through them and their achievements we discern powers and qualities latent within ourselves. The more we understand, the more we appreciate and the richer life becomes.—Leon J. Richardson.

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[1] Soto-Hall, R., and Haldeman, K. O.: Muscle and Tendon Injuries—In the Shoulder Region, Calif. and West. Med., 41:318-321 (Nov.), 1934.

[2] Haldeman, K. O., and Soto-Hall, R.: Injuries to Muscles and Tendons, J. A. M. A., 104:2319-2324 (June 29), 1935.

[3] Schulhof, E.: Die Subdeltoidale Injection zur Behandlung der Periarthritis Humeroscapularis, Zentralbl. f. Chir., 53:1364-1366, 1926.

[4] Coste, M. F.: Sur les Infiltrations Anesthésiques Periarticulaires, Bull. et mem. soc. med. d. hôp. de Paris, 49:627-630, 1933.

[5] Leriche, R.: Des Effets de L'anesthésie a la Novocaine des Ligaments et des Insertions Tendineuses Periarticulaires dans Certaines Maladies Articulaires et dans les Vices de Position Fonctionnels des Articulations, Gaz. d. hôp., 73:1294 (Sept. 10), 1930.

ORIGINAL ARTICLES

THE MODERN THERAPY OF SYPHILIS*

AS ADMINISTERED AT THE UNIVERSITY OF CALIFORNIA OUT-PATIENT DEPARTMENT

By HOWARD MORROW, M.D.
NORMAN N. EPSTEIN, M.D.
AND
LEROY K. GAY, M.D.
San Francisco

DISCUSSION *by Ernest Dwight Chipman, M.D., San Francisco; William H. Goeckerman, M.D., Los Angeles; Stanley O. Chambers, M.D., Los Angeles.*

IT is the purpose of this paper to outline briefly the methods of treatment used for certain types of syphilis at the University of California syphilis clinic. The treatment of syphilis has, for the most part, been concentrated in large clinics, and it is to these that the practicing physician must look for guidance as to the selection of drugs and methods to be pursued. At the University of California outpatient department all adults with syphilis are treated in clinic "L." Approximately six hundred such patients, representing the various manifestations of the disease, are treated weekly.

EARLY SYPHILIS

Early syphilis is that period of acquired syphilis which extends from the time of the appearance of the primary sore through the healing of the secondary lesions. It is during this period that the Treponema pallida multiply sufficiently at the site of inoculation to form the primary sore and then disseminate throughout the body to give the symptoms of secondary syphilis. Clinically, we recognize the following stages of early syphilis:

(*a*) Primary stage, seronegative.

(*b*) Primary stage, seropositive.

(*c*) Secondary stage, *i. e.,* the eruptive period indicating a widespread dissemination of the Treponema pallida.

The early period of syphilis is the golden opportunity of therapy, and offers the greatest chance of cure. From a public health standpoint, the control of early syphilis is most important, as it is in this period that the infection is easily transferred from one individual to another. As high as 86 per cent of patients properly treated in the seronegative primary stage should be cured; 70 per cent in the seropositive primary stage, and 65 per cent in the secondary stage may expect a cure. These percentages represent the statistics compiled by the Coöperative Clinics.[1] Moore[2] states that, with the best available treatment, the chance of cure in seronegative primary syphilis is approximately 100 per cent, in seropositive primary 95 per cent, and in early secondary syphilis 90 to 95 per cent. The term "cure" is used advisedly, and is defined as a complete eradication of all signs and symptoms of the disease with nontransmission of the infection over the period of a lifetime.

TABLE 1.—*Plan of Treatment for Early Syphilis**

Day	Neoarsphenamin Intravenously	Bismuth Salicylate Intramuscularly
1	0.45 gm.	....
5	0.45 gm.	....
10	0.45 gm.	....
Week 3	0.6 gm.	....
4	0.6 gm.	0.2 gm.
5-7	0.6 gm.	0.2 gm.
8-11	....	0.2 gm.
12-17	0.6 gm.	....
18-19	0.6 gm.	0.2 gm.
20-25	....	0.2 gm.
26-33	0.6 gm.	....
34-41	....	0.2 gm.
42-47	0.6 gm.	....
48-57	....	0.2 gm.
58-63	0.6 gm.	....
64-75	....	0.2 gm. End of treatment of seronegative primary stage.
76-81	0.6 gm.	....
82-93	....	0.2 gm.
94-99	0.6 gm.	....
100-104	....	0.2 gm. End of treatment of seropositive and secondary stages.

* Unless otherwise indicated, injections of these drugs are given once each week.

Treatment in the early period of syphilis must be continuous, and carried over a long period of time if best results are to be obtained. It is essential that the patient be impressed with this fact, as inadequate therapy may be harmful to the individual. Treatment in this period of syphilis lends itself to standardization, and the plan adopted should be rigidly followed as to dosage of drug and the time-interval of the injections. By continuous therapy is meant the uninterrupted administration of remedies until the end of treatment.

Seronegative primary syphilis should be treated for at least one and one-half years; seropositive primary and secondary syphilis should be treated for two years or more.

SEROLOGIC CONTROL

The blood Wassermann and Kahn tests may be done at the conclusion of each course of bismuth salicylate or, as is our custom, they may be done at the conclusion of the required amount of treatment for the given patient. This latter method is

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* From the Division of Medicine (Dermatology), University of California Medical School, San Francisco.

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TABLE 2.—*Plan of Treatment for Latent Syphilis*

Week	Bismuth Salicylate Intramuscularly Weekly	Mercury Salicylate Intramuscularly Weekly	Neoarsphenamin Intravenously Weekly	Potassium Iodid (Saturated Solution) By Mouth
1-12	0.2 gm.	....	....	1 cc., t. i. d. p. c.
13	....	....	0.45 gm.	....
14-18	....	....	0.6 gm.	....
19-30	0.2 gm.	....	....	1 cc., t. i. d. p. c.
31-35	....	....	0.6 gm.	....
36-47	0.2 gm.	....	....	....
48-53	....	....	0.6 fm.	....
54-65	0.2 gm.	....	....	....
66-71	....	....	0.6 gm.	....
72-77	0.2 gm.	....	....	....
78-83	REST Check blood and spinal fluid. If blood is positive and spinal fluid is negative, continue as follows:			
84-95	....	0.1 gm.	....	1 cc., t. i. d. p. c.
96-101	....	....	0.6 gm.	....
102-107	REST Check blood. If Wassermann or Kahn are positive, continue treatment.			
108-119	0.2 gm.	....	....	....
120-125	....	....	0.6 gm.	....
126-131	REST Check blood. If Wassermann or Kahn are positive, continue treatment.			
132-143	0.2 gm.	....	....	....
144-150	....	....	0.6 gm.	....
151-162	0.2 gm.	....	....	....
	This marks the end of treatment for latent syphilis, whether the blood Wassermann or Kahn reactions are positive or negative. If the spinal fluid is positive, the case should be regarded as asymptomatic neurosyphilis.			

called the bloc type of treatment, and has a tendency to encourage the patient to complete the course of therapy prescribed, and further makes him less "Wassermann-conscious."

At the conclusion of treatment the blood Wassermann and Kahn tests are done at six-week intervals for two examinations. If found consistently negative, they are done at three-month intervals for the first year, six-month intervals for the second year, and then one year later. The spinal fluid is examined within three months after treatment is discontinued. If the patient is found to be physically free of any signs of syphilis, and serologically negative during this period of observation, he is considered "cured."

In the event that the blood serologic tests remain positive after the required amount of therapy has been received, the patient is treated for an additional year. Treatment is then discontinued, and if the blood serology is still positive the patient is placed under observation indefinitely. If the spinal fluid is positive after treatment has been concluded, special methods of therapy are instituted.

RELAPSE

Clinical relapse is usually the result of inadequate therapy in the early period of syphilis. It occurs in about 10 per cent of inadequately treated patients, while in the adequately treated group it is a rarity.

Neurorecurrence, or neurorelapse, requires special mention. This condition is an overwhelming invasion of the central nervous system by Treponema pallida, with the sudden development of an acute syphilitic meningitis, or the occurrence of a cerebrovascular accident such as a hemiplegia, a monoplegia or a paraplegia, or various cranial nerve palsies. For this condition we have employed with satisfactory results the following regimen. The patient is rapidly mercurialized with a course of twenty intramuscular injections of mercury succinimid, grains one-quarter, each given three times weekly. This is followed by a course of eight injections of neoarsphenamin, 0.45 grams to 0.6 grams. The spinal fluid should show at this time a marked reduction in the cell-count and a general improvement in the other spinal fluid findings. Treatment is continued as indicated in Table 1. Other forms of relapse may be treated as indicated in Table 1.

LATENT SYPHILIS

This phase of syphilis is the period in which all signs and symptoms of the disease have disappeared, and is diagnosed by the presence of positive serum tests or by a very definite history of the infection with inadequate therapy. It may be further divided into early latency—that is, within four years of the onset of the infection; and late latency, more than four years after the initial infection.

Table 3.—*Plan of Treatment for Asymptomatic Neurosyphilis*

Week	Tryparsamid Intravenously Weekly	Neoarsphenamin Intravenously Weekly	Bismuth Salicylate Intramuscularly Weekly	Potassium Iodid (Saturated Solution) By Mouth
....	....	....	0.2 gm.	1 cc., t. i. d. p. c.
12	....	0.45 gm.	....	....
13-18	....	0.6 gm.	....	....
19-24	....	....	0.2 gm.	1 cc., t. i. d. p. c.
25	1.0 gm.	....	....	....
26-49	2.0 gm.	....	....	....
50-57	....	....	0.2 gm.	....
	Check spinal fluid. If positive or negative, continue treatment.			
58-72	2.0 gm.	....	....	....
73-80	....	....	0.2 gm.	....
81-95	2.0 gm.	....	....	....
96-103	....	....	0.2 gm.	....
	Check spinal fluid. If negative and previous test was negative, discontinue treatment. If negative and previous test was positive, continue treatment.			
104-119	2.0 gm.	....	....	....
120-127	....	....	0.2 gm.	....
128-142	2.0 gm.	....	....	....
143-150	....	....	0.2 gm.	....
	If spinal fluid remains consistently positive, ten pyrotherapy treatments, consisting of fifty hours of fever over 104 degrees Fahrenheit (40 degrees Centigrade), should be given simultaneously from week 104 to week 113.			

The purpose of treatment in latent syphilis is to "cure" the patient or to prevent late complications of the disease. It is obviously poor judgment to treat a patient of advanced age because he has a positive blood Wassermann reaction if there are no clinical evidences of the disease. On the other hand, it is very much worth while to treat patients in the latent stage of syphilis who have a reasonable length of life before them.

PLAN OF TREATMENT FOR LATENT SYPHILIS

In latent syphilis, treatment should be continuous for a year and one-half, provided the drugs are tolerated well. After this time rest periods of six weeks may be given. The total length of treatment should be two to three years. Three years is considered the end-point of treatment, whether the blood serologic tests are positive or negative. A patient with a positive spinal fluid is not in the stage of latency, and should be treated as outlined for syphilis of the central nervous system.

At the conclusion of treatment, patients in the late latent stage of syphilis should be kept under observation for the rest of their lives if possible. In the event that the blood Wassermann and Kahn reactions have reversed to negative as a result of treatment, the patient should be seen yearly to check on the serum and for physical examination. It is advisable to examine the spinal fluid in this group of patients every three to five years.

Patients in the early latent stage of syphilis should be observed for three years after conclusion of treatment, and if clinically free of signs of syphilis, and serologically negative, should be regarded as "cured."

LATE SYPHILIS

Late syphilis is that period of the disease which is characterized by the development of signs and symptoms due to the formation of gummas in the various tissues. Any organ or tissue of the body may be affected by this process. This stage of syphilis may appear within a few months of the initial lesion, or, as is the rule, several years later. It is impossible to outline a plan of treatment which would be applicable to the entire group of patients with late syphilis. In general, the plan outlined for latent syphilis would be suitable for patients who present only evidences of late syphilis of the skin and mucous membranes of the mouth, anus and genitalia, of the bony skeleton, the skeletal musculature and subcutaneous tissues. However, where the cardiovascular system, the nervous system, the abdominal viscera, and special organs, such as the eye, are involved, the plan of treatment must be changed to meet these situations.

NEUROSYPHILIS

Involvement of the central nervous system is probably the most frequent and most important complication of late syphilis. It is found in about 25 per cent of all patients in this stage of the disease. The introduction of tryparsamid in 1917 by Heidelberger, and fever therapy by von Juaregg in 1919 have been outstanding contributions to the treatment of all forms of resistant syphilis of the central nervous system. They are, however, of particular value in the treatment of the parenchymatous forms of neurosyphilis, such as paresis, taboparesis, and tabes dorsalis.

CLASSIFICATION OF NEUROSYPHILIS

Late neurosyphilis may be classified as follows:

(*a*) Asymptomatic neurosyphilis; that form in which the only evidence of neurosyphilis is the presence of a positive spinal fluid. This may be compared with the latent type of systemic syphilis.

(*b*) Meningeal and meningovascular neurosyphilis.

(*c*) Parenchymatous neurosyphilis; that is, general paresis, taboparesis, and tabes dorsalis.

As these various types of neurosyphilis do not lend themselves to one plan of treatment, an outline of therapy for asymptomatic neurosyphilis is presented. Special indications in the other forms of neurosyphilis will be pointed out later.

GENERAL PARESIS

In general paresis with clinical evidence of mental deterioration, tryparsamid therapy should be instituted at once. If the mental deterioration progresses unchecked by this treatment, or if the deterioration is marked, pyrotherapy or artificial fever therapy should be instituted simultaneously with tryparsamid therapy. The course of pyrotherapy may be repeated within six months or one year, if deemed necessary. Tryparsamid may be given in two- to three-gram dosage intravenously for a series of fifteen to twenty-five injections. This drug has earned well-deserved recognition as the most effective remedy in the treatment of neurosyphilis. It is tolerated very well by the patient. The most important toxic effect is upon the optic nerve. Blindness has been reported after its use. This should not deter one from employing this drug, as optic complications of a serious nature are very unusual and can be prevented in a large measure by careful examination of the fundi and visual fields before treatment is begun, and by checking the eye-grounds at frequent intervals. Subjective symptoms of visual disturbances precede objective changes, and by discontinuing the drug serious harm can be prevented. Visual disturbances following tryparsamid therapy usually occur within the first five to ten injections of the drug.

Tryparsamid courses are alternated with courses of bismuth salicylate, as shown in Table 3.

PYROTHERAPY

The introduction of artificial fever for the treatment of general paresis and other forms of resistant neurosyphilis has changed the outlook for many of these patients from one of complete hopelessness to that in which an arrest of their disease may be expected.

Malaria therapy, as introduced by Wagner von Juaregg, has been dramatic in its effects upon general paresis. During recent years other methods of producing artificial fever have been introduced. As the therapeutic effects are comparable where temperatures of 104 to 106 degrees Fahrenheit are developed and maintained for several hours, it is generally agreed by most observers that the essential factor in this treatment is the elevation of body temperature rather than any specific effect of the method used.

We employ the blanket method of inducing artificial fever, and have found it practical and therapeutically effective. The technique of this procedure has recently been described.[3] Where the term "pyrotherapy" is employed in this paper, it refers to this type of artificial fever therapy. A course of pyrotherapy is ten weekly treatments, each consisting of five hours of temperature over 39.5 degrees centigrade (103 degrees Fahrenheit).

TABOPARESIS AND TABES DORSALIS

Patients with taboparesis should be treated as those with general paresis.

In tabes dorsalis the plan outlined in Table 3 should be followed. It has been found that pyrotherapy is particularly effective in relieving the severe pains and crises of this type of syphilis, and may be employed where indicated.

LUMBAR PUNCTURE

Examination of the spinal fluid should be done in all patients who have, or have had, syphilis, no matter how early the case had been diagnosed nor how intensively it had been treated. Lumbar puncture may be done for diagnostic purposes or as a guide in therapy.

In early syphilis, lumbar puncture should be done at the conclusion of treatment, as involvement of the central nervous system is usually controlled by the treatment advised for this period.

In latent syphilis, lubar puncture should be done during the first rest period.

In late syphilis, lumbar puncture should be done after one year of treatment if there are no clinical evidences of neurosyphilis. If such signs are apparent, lumbar puncture should be done before treatment is instituted, and repeated at intervals of six months to a year as a guide to therapy.

COMMENT

Due to lack of space, we have not discussed the toxic reactions which are met with as a result of antisyphilitic therapy with drugs. We have also omitted to outline a plan of treatment for certain types of syphilis, such as cardiovascular syphilis, hepatic syphilis, syphilis in pregnancy, etc. We have not attempted to include in this report the therapeutic results obtained by the plans of treatment outlined. However, we have found them effective and satisfactory.

The success of a plan of treatment for a given case of syphilis will depend on the skillful use of the drugs advised, and rigid adherence to the plan adopted. Every precaution should be taken to make the treatment "smooth"—that is, without serious reactions. Irregular treatment, whether due to a lack of coöperation on the part of the patient or as a result of toxic reactions, is always unsatisfactory.

In early syphilis the intensive use of the arsphenamins is essential, as these drugs are highly treponemicidal. Bismuth and mercury, the resistance-building drugs, are less important, but nevertheless must be used in conjunction with the arsenicals. In this stage of the disease, particularly previous to the appearance of the secondary eruption, a cure is attempted before the patient has had an opportunity to develop his own resistance mechanism to its highest degree against the infection. Therefore, inadequate therapy leaves the patient helpless against invasion by the Treponema pallidum. This accounts for the frequency of clinical relapse in those patients who have had only a few injections of neoarsphenamin and no other treatment.

In latent and late syphilis the resistance mechanism of the patient is developed to a high degree, and treatment is altered accordingly. Therapy is begun with a long course of bismuth, combined with potassium iodid by mouth. This accomplishes a gradual therapeutic effect without disturbing too abruptly the relationship between the host and the parasites. Here the arsphenamins are less important, and are given in short courses between those of the heavy metals.

Invasion of the various organs of the body occurs during the early period of syphilis when the Treponema pallidum is disseminated. Therefore, treatment should be as early as possible. The final therapeutic effect will depend upon the amount of destruction produced by the disease before therapy was instituted.

SUMMARY

A plan of treatment has been presented for the treatment of early syphilis, latent syphilis, and certain types of late syphilis.

The cause and treatment of clinical relapse have been discussed.

A plan of treatment for asymptomatic neurosyphilis has been outlined.

The use of tryparsamid and fever therapy in general paresis, taboparesis, tabes dorsalis and other forms of resistant syphilis of the central nervous system has been emphasized.

The indications for lumbar puncture in the various stages of syphilis have been stated.

University of California Hospital,
San Francisco.

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DISCUSSION

Ernest Dwight Chipman, M. D. (2000 Van Ness Avenue, San Francisco).—The authors of this paper are to be congratulated upon the comprehensive and, at the same time, the concise manner in which they have covered their subject.

The necessity for a definite, standardized system of treatment is emphasized throughout, and there are numerous practical reminders such as the statement that a patient with a positive spinal fluid is not to be considered in the stage of latency.

It may be observed that, in treating syphilitic patients in large groups, there lurks always the danger of relying exclusively upon specific remedies to the neglect of the individual himself. We may believe that, by the injection of bismuth, we are building up resistance; but we must not neglect the consideration of such allied factors as secondary anemia, kidney function, foci of infection, etc., which also are of importance in this connection. The authors have doubtless regarded this as understood.

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William H. Goeckerman, M.D. (1216 Roosevelt Building, Los Angeles).—Doctor Morrow and his associates have given us a splendid outline of the routine treatment of the various phases of syphilis. I agree heartily with what has been said, and feel sure that if their teachings are carefully followed, treatment will be excellent and the patient receive such benefit as modern medical treatment has to offer. I should like to emphasize a few points, however, which I do not think usually get the attention that they deserve. Evidently the man in general practice has great difficulty with deciding on further treatment in patients who have no symptoms, but a persistently positive Wassermann reaction. I believe no definite rule can be laid down in cases of this type; but it can be said that not the Wassermann but the patient should be treated. If the amount of treatment has been reasonably adequate according to modern standards, and there are no clinical findings, there is no necessity to try to reverse the Wassermann reaction by intensive treatment. It should be noted, however, that when I say no clinical findings, I mean that the investigation must be a competent one, and this cannot be carried out by one individual. This phase is usually termed the latent phase, but cannot be spoken of by this term without an examination of the spinal fluid. The possible invasion of the central nervous system should be recognized as early as possible after the early symptoms have subsided, as it may be highly desirable to give this phase of the infection special attention. If the invasion is associated with clinical signs, the immediate approach may become an important one. Should the fluid point to a "paresis sine paresi," I do not believe that the patient should be treated with tryparsamid for any length of time. It is at this time that I think the very best results are obtained with pyrotherapy. In the event that suggestive evidence of paresis has presented itself, tryparsamid should not be used at all unless it has been determined that the patient will not tolerate pyrotherapy. The crucial moment is often passed at this time by dilatory tactics with one of the easier methods of treatment, such as tryparsamid. If the patient does not stand pyrotherapy, then tryparsamid should be given a thorough trial in the hope of arresting the process. In other words, I consider tryparsamid therapy very definitely inferior in therapeutic results to malaria therapy in paresis. Personally, I am as yet unconvinced that any form of pyrotherapy can be substituted for malaria therapy. I should like to call attention to the fact that Wagner von Jauregg for many years experimented with many substances such as tuberculin, mixed staphylococcus, streptococcus vaccines, and protonucleins, in an endeavor to get results with fever therapy, but was never satisfied with any of these until he employed malaria. My own experience would also indicate that, while some results may be obtained, fever therapy in general does not approach malaria therapy in efficacy. The pyrotherapy produced by mechanical methods will have to be in the experimental stage for a number of years to come at least. I do not believe that the therapeutic results from pyrotherapy are the direct effect of the fever, but rather an indirect effect on the immunity mechanism. This is very strongly suggested by the facts that, following malaria therapy, the spinal fluid findings may show a very definite improvement and yet gummatous lesions may appear on the skin or elsewhere. In addition to this, the serologic findings on the spinal fluid are not changed rapidly, but only very gradually, sometimes taking as much as two years before reversal has occurred, no matter whether other antisyphilitic treatment is subsequently given or not.

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Stanley O. Chambers, M.D. (1260-62 Roosevelt Building, Los Angeles).—The immensity of Doctor Morrow's material from clinic "L" makes possible observational and statistical conclusions of a most accurate nature. It is through such agencies that the modern therapy of syphilis can adequately be disseminated.

Early syphilis is no doubt that phase of the disease, preceding extensive tissue involvement, when clinical cure is a concrete possibility. Its identification via the Krajian stain or darkfield apparatus is comparatively simple. Treatment, likewise, is readily administered, and with a moderate knowledge of reaction of organisms and host, the use of arsphenamin, bismuth, and mercury can be a well-systematized series of intravenous and intramuscular administrations. Reaction is the exception rather than the rule if methods of preparation, choice of drugs, care of administration and an always active preparedness for accidents, is carefully observed. Serologic observation still remains an important guide-post in the determination of treatment indications and the ultimate disposition of therapy.

The spinal fluid examination, early in the plan—the eighteenth week—offers a prognostication which may well alter a fixed procedure of treatment. Patient coöperation to the conclusion of treatment obviously is ncessary, for relapse of all types is almost in proportion to regularity.

TOLERANCE TO ALCOHOL: ITS MECHANISM AND SIGNIFICANCE*

By EMIL BOGEN, M.D.
Olive View

DISCUSSION *by C. H. Thienes, M.D., Los Angeles; Henry W. Newman, M.D., San Francisco.*

IT has long been known that different individuals are not all equally affected by drinking the same amount of alcoholic liquors.[1] Such differences in susceptibility, or "tolerance," to alcohol may be of great practical, as well as of scientific importance. To the drinker himself, it becomes increasingly important, as has been suggested, to learn how to "carry his liquor," to drink within his own limitations, and to avoid unpleasant consequences of the drug.[2] The deliberate use of methods of delaying absorption,[3] of increasing excretion,[4-7] and of accelerating destruction of the alcohol imbibed [8-10] may at times become matters of considerable therapeutic value. The extent to which alcohol might act as a food, and the conditions under which its energy might be useful, are still moot questions.[11,12] Public officials are more and more concerned with the part played by alcohol in the causation of traffic accidents,[13-16] and the determination of the influence of alcohol in suspected individuals.[17-37] Intelligent consideration of all of these problems requires an understanding of the physiology of alcohol,[38,39] and the factors affecting tolerance to it.

EFFECTS OF ALCOHOL ON VEGETABLE AND ANIMAL FORMS

The effects of alcohol have been studied on a host of different vegetable and animal forms.[40] In general, it appears that unicellular organisms will withstand somewhat higher concentrations of alcohol than can be borne by multicellular types. Concentrations up to two per cent are generally reported well tolerated by protozoa, bacteria, and by the sperm and ova of numerous species, including the sea urchin, fundulus, frog, hen, fruit-fly, and guinea pig. On the other hand, effects are noted in multicellular forms as low as 0.01 per cent, and mammals are generally killed before the alcoholic concentration in their tissues reaches one per cent.

Where protective mechanisms prevent the alcohol from actually entering the tissues, much higher concentrations in the environment may, of course, be borne. Thus spores may resist absolute alcohol for considerable periods, frogs have been shown to survive immersion in eight per cent alcohol because of impermeability of their skins to the passage of the alcohol, and there is no danger from the skin-absorption in an alcohol bath, although deaths from inhalation of the alcohol fumes under such conditions have been reported.

Under similar conditions of exposure to alcohol, different individuals of the same species may show differences in behavior. This often appears to be due more to varying concentrations of the alcohol actually penetrating into the individuals concerned than to any true differences in individual resistance, as subsequent tests of the same individuals or their progeny may fail to show such behavior.

For example, we have found at Olive View that the fruit-fly, Drosophila melanogaster,[41] is usually killed, or the eggs fail to hatch, the larvae to pupate, or the pupae to emerge, if placed in a jar with media containing more than 15 per cent of alcohol. If the few survivors at this concentration are bred, they are found to be, if anything, even more susceptible to the alcohol than the controls, and we have thus far been unable to develop a strain of fruit-flies with increased tolerance against alcohol applied in this manner. (See Table 1.)

TOLERANCE AND HABITUAL USE

A distinction must be made between tolerance and habitual use. Total abstainers vary greatly in their reaction to the same dose of alcoholic liquors, some never attain any increased ability to withstand the drug, and instances of chronic drunkards who are easily intoxicated may be encountered.[42] In fact, it has been suggested that the constant excessive use of alcohol may lower the tolerance formerly possessed. Both clinically and experimentally,[43-45] it has been repeatedly observed that habitual users of alcohol are apt to have a high tolerance for it. This is not always the case, however, and some of the discrepancies in the literature may be due to a failure to recognize this fact.[46,47]

ENDOGENOUS ALCOHOL

It has long been alleged that there is a certain amount of alcohol preformed in the tissues of mammals, including man,[48] arising either in the process of digestion, in the metabolism of carbohydrates, or in other ways.[49] That a volatile-reducing substance is present in small amounts is generally observed,[50] and it has been reported that pure anhydrous ethyl alcohol has been isolated from the blood and tissues of man and dogs.[51] A few workers have failed to find this alcohol-like substance, and some have suggested that it may be a postmortem product, while few of the

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* Read before the Pathology and Bacteriology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

Table 1.—*Tolerance to Alcohol in Fruit Flies*

Per cent of bottles with living offspring	Per Cent of Alcohol in Media						
	0	10	12	14	16	18	20
Normal flies	100	100	100	85	50	15	0
Progeny of survivors of 17 per cent alcohol	100	100	85	66	50	0	0

workers who have reported it agree on the amount obtained. At any rate, the figures reported, a few milligrams per hundred cubic centimeters of tissue, are far too small to produce any discernible effect, or to interfere in the investigations of the amounts present following administration of clinical doses.

MECHANISMS OF TOLERANCE

There are various mechanisms by which tolerance to a drug may be established. The simplest form is that of simple lack of absorption, such as is reported for the arsenic eaters of Styria, where the poison, harmless if taken by mouth, still remains toxic if given hypodermically. On the other hand, we find the complex immunity displayed against the diphtheria toxin by Schick-negative individuals, who possess, in the antitoxin in their blood and tissues, a true antidote against the poison. Immunity to caffein is said to consist mainly in the increased ability of the habitual user to destroy large amounts of the alkaloid, while immunity to antigens in allergic conditions seems to depend upon a loss of reactivity of the individual cells to its presence. Immunity to lead poisoning, on the other hand, appears to come with a tendency to alkalosis, leading to the precipitation of the lead in inactive deposits in the bones. Much remains to be learned regarding all forms of tolerance, and it is probable that multiple factors are frequently concerned.

In the case of alcohol, every possible explanation for the existence of tolerance—that is, the ability of some individuals to drink more than others without showing as much effect—has been proposed, at some time, usually with assurance that this is the sole or most important mechanism concerned. Thus the failure to manifest symptoms following ingestion of alcoholic liquors has been attributed to the factors affecting absorption of the alcohol, to its more rapid or complete destruction within the body, or its more complete elimination, or to an increase in the ability of the individual cells to withstand the drug. Further investigation of this problem is obviously still required.

Table 2.—*The Distribution of Alcohol in a 200-Gram Guinea Pig an Hour After the Oral Administration of 0.3 Grams of Alcohol.*

Stomach	0.12 per cent
Blood	0.12 per cent
Liver	0.11 per cent
Bladder	0.09 per cent
Urine	0.09 per cent
Muscle	0.07 per cent
Brain	0.05 per cent
Spleen	0.04 per cent

ABSORPTION OF ALCOHOL

Early observers noted that alcohol was quickly absorbed,[52] and could be readily detected in practically all of the tissues, fluids and excretions of the body.[32] Accordingly, it was stated that the alcohol rapidly diffused throughout the body in nearly equal concentrations.[26] More precise determinations have since shown that this generalization is not entirely accurate,[3, 53] but for most practical purposes it is a fairly reliable rule.

The differences in the solubility of alcohol in various tissues, however, leads to a certain amount of differences in the concentrations finally developed when the diffusion has reached equilibrium. Alcohol is more soluble in the phospholipins of the brain, and less soluble in the bone and cartilage, than in the blood, and so such differences might be expected as are, in fact, actually encountered; but the differences are so slight that they are usually detected only by the more precise methods of determination.

The amount of alcohol consumed, divided by the weight of the body, would give, accordingly, the maximum concentration which we might expect to develop. Since increase in weight is not accompanied by proportional increases in the size of the brain, the volume of blood, and other tissues in which the alcohol is to be found in higher concentrations, it may be found that the values observed are proportional to the body surface, the blood volume, or the two-thirds power of the weight, rather than to the total volume.[54] There is quite a large individual difference in different animals in this respect, depending perhaps on their anatomical composition as well as upon their state of tolerance, so conclusions should not be drawn from too small a series.[55]

DISTRIBUTION OF ALCOHOL IN THE BODY TISSUES AND FLUIDS

The temporal lag in the distribution of alcohol through the various tissues and fluids of the body has given rise to many differences of opinion, much of which is based upon misapprehension of the mechanisms involved. The alcohol imbibed is at first, naturally, found in highest concentration in the stomach and intestinal contents;[29] then it goes to the liver and thence into the general blood stream where, owing to its relatively lesser solubility in the corpuscles, it reaches a higher level in the plasma than in the whole blood.[42] It then diffuses gradually into other tissues, fluids and excretions, at variable rates, depending upon the richness of the blood supply, and the chemical and physical composition of the tissue. (See Table 2.) Lower figures are found both in bony and in fatty tissues, and the former is readily explainable by the low solubility of alcohol in bone. The latter may depend partly on lower solubility in the particular types of fats so deposited, as contrasted with the phospholipids of the brain, and partly on the poorer blood supply to such tissues, resulting in slower penetration, since most of these studies were made within a few hours of absorption. Perhaps studies made at a later time might show a different result.

Alcohol apparently reaches the brain quite early, and reaches a slightly higher concentration in brain tissue than in the blood, probably due to its greater solubility. It also, however, appears to remain in the brain for a longer time than in the blood and other tissues, partly for the same reason and partly, perhaps, because it is not destroyed in brain tissue as it gradually is in the muscles and liver, and so lessens only by diffusing back into the blood stream.

The concentration of alcohol in the spinal fluid rises much more slowly than in the blood or in the brain,[56] as it diffuses or is secreted into the spinal fluid apparently mainly from the region of the brain, and not along the cord, as has been clearly shown in a case of spinal block.[57] Early examinations, accordingly, show a much lower level in the spinal fluid than in the blood or brain; but as the alcohol remains in the spinal fluid even longer than in the brain, it later exceeds that in the blood and for a time may be much closer to the levels found in the brain.[25, 58]

The alcoholic content of arterial blood is, soon after absorption, higher than that of venous blood, as some of the alcohol is being removed from the blood by diffusion into the tissues. Later the alcoholic content of the venous blood may be found to be higher than that of arterial blood, as the alcohol again diffuses back into the blood stream from those tissues in which it is not being destroyed. Capillary blood appears to behave like arterial blood in this regard.[59]

The alcoholic content of the urine reflects that of the arterial blood at the time it is secreted, which is, at an early time, rising, and later falling in concentration.[42] Since the urine collected was always secreted at a somewhat earlier period, it is obvious that at an early time after imbibing alcohol, the concentration in the urine would be lower, and at a later time higher, than that in the blood at the time it is voided.[35] In general the urinary alcohol is a little higher than that of the blood, as the alcohol is slightly more soluble in the urine than in blood plasma.[54] Any figure given for the ratio between the alcoholic content of the blood and that of the urine must take into account the fact that this ratio is a changing one, because of the mechanism of secretion, and cannot be represented under different conditions by the same fixed figure.[34]

The alcoholic content of the expired air is the result of diffusion of alcohol from the blood and pulmonary tissue into the alveolar air, and to a lesser extent into the air in the dead space of the lungs. This is a result of the vapor pressure of the alcohol in the blood and tissues, and is, accordingly, proportional to the alcoholic concentration of the mixed blood passing through the lungs.[60] This appears to be closer to the arterial than to the venous blood concentration, which are not, as has been shown, exactly parallel.[59] Increased respiratory volume appears to lead to an increase in the amount of alcohol lost by this channel without significantly changing the concentration of alcohol found in the expired air.[4] Similarly, diuresis or increased urinary excretion seems to increase the amount of alcohol lost in that manner, without changing the concentration of alcohol in the urine.[6]

The alcoholic content of the saliva has also been shown to be a function of the alcoholic content of the blood. Alcohol may also be found in the milk, sweat, and other excretions,[32] but measurements of the relative concentrations in these fluids, as well as in the amniotic fluid in pregnancy, are less readily available.

ALCOHOL CONCENTRATIONS IN THE BLOOD

Following the ingestion of alcohol, the concentration found in the blood rapidly rises to a peak, usually within an hour, remains at about that height for a variable period of time—the so-called Grehant plateau—and then slowly falls. The rate of fall was found by most observers to be rather constant; that is, an equal drop is observed during equal intervals of time, irrespective of the initial concentration at the time. This has been interpreted as representing a fixed limit to the ability of the body to oxidize alcohol, independent of the amount present.[3] As a result, it has been believed, for example, that the administration of ten grams of alcohol every hour would lead to just as much alcohol oxidation in the body as the administration of ten times that much every ten hours, without the obvious signs of alcoholic intoxication that develop from the larger single dose.

Recently it has been suggested that this apparently constant rate of fall is an artefact, due to the fact that a constantly decreasing amount of absorption of alcohol is accompanying a constantly decreasing amount of destruction, and that, in fact, the rate of oxidation of alcohol within the body is a function of the concentration; in other words, that a larger amount is burned after a single large dose than after the same amount divided in repeated dosage. It was asserted that if the alcohol were given intravenously the rate of decline in concentration in the blood would be a definite function of the concentration itself, and experiments were performed which appeared to give this result.[61] Since this is the type of curve obtained following the administration of acetone, ether, chloroform, and other similar agents, it appeared, *a priori*, quite probable, and experiments were accordingly instituted at Olive View to confirm these findings. (See Chart 1.)

Somewhat to our surprise, however, the experiments here reported did not yield these results. Even after intravenous injection of varying amounts of alcohol, the concentrations of alcohol in the blood appear to fall at a steady rate, in a straight line, without the slowing that was pre-

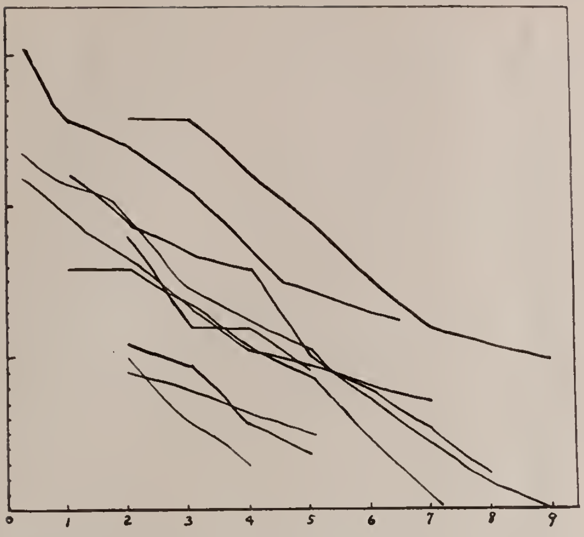

Chart 1.—Olive View experiments. The concentration of alcohol in the blood of rabbits after intravenous administration. (The horizontal figures represent hours, the vertical mg. alcohol.)

dicted. Observations made within the first hour, it is true, did show a rather rapid drop before this steady rate was achieved,[62] but this rapid drop appeared to occur both at low levels and at high ones, immediately after injection, and the rate then assumed the constant form previously described following oral administration. (See Chart 2.) We must, therefore, again examine the problem to see if the recently proposed theory of declining oxidation of alcohol with lowered concentration in the blood is correct.

In the first place, the absorption of alcohol from the gastro-intestinal tract has been found, by a number of investigators,[63] to take place quite rapidly, most of it being absorbed within half an hour, and practically all within two hours. There are a few experiments that suggest that very high concentrations of alcohol in the blood stream tend to slow the rate of absorption;[64] but there is nothing to indicate that the absorption may continue to an appreciable extent for more than two hours, at least under ordinary conditions. Of course, the presence of large amounts of water or other substances in the gastro-intestinal tract, especially lipids, such as would occur after taking dilute alcohol, or after a meal, would delay absorption,[8, 65] as would also excitement, fever,[66] and other conditions slowing the splanchnic circulation; but these were absent in most investigations.

The fact that observed graphs of the alcoholic content of the blood show a continuous straight line for many hours after the taking of alcohol cannot, then, be explained on the supposition that the alcohol continues to be absorbed throughout this entire period.

On the other hand, it has been shown that the diffusion of alcohol from the blood into the tissues shows a distinct lag. The peak or highest concentration of alcohol in the spinal fluid, for example, may not occur for as much as two hours after the highest concentration is reached in the blood stream.[57] It is apparent, therefore, that a large part, if not all, of the initially more rapid fall found following intravenous injection of alcohol may be the result of this process of diffusion into the tissues, rather than a true oxidation or destruction of the alcohol.

The persistence of a small amount of volatile-reducing substance in the blood, becoming asymptotic with the base line in the equations and curves recently proposed, may represent, perhaps, rather the endogenous reduction observed with the method used, as such persistence of alcohol in the blood hours after it has reached a very low level in the blood (under 0.05 per cent) has not been observed by other workers.

The analogy with ether, chloroform, acetone, etc., which give the falling rate of decline in the blood stream, is misleading, because in these cases the decline is due mainly to excretion, which is a simple physical process obviously proportional to the concentrations present,[67] and does not involve the oxidation mechanisms which are required in the case of alcohol.

OXIDATION OF ALCOHOL IN THE BODY

It may be interesting in this connection to recall that although alcohol is undoubtedly oxidized in the body, yielding heat, carbon dioxid and water, little is known of the manner in which this oxidation takes place, and the intermediate stages in the process, usually assumed to be acetaldehyd and acetic acid, have not been actually proved. It has been pointed out that these intermediates are, themselves, usually not entirely oxidized and destroyed in the body, but are rather excreted in large part, and studies of ketolysis and of effects on nitrogen metabolism have indicated that ingested alcohol behaves more like ethylene glycol than like acetaldehyd in these regards.[68] Further study of this problem is obviously needed. It would appear, however, that the form of the fall in concentration of alcohol in the blood might be better compared with that of some other substance, which is also slowly but nearly completely oxidized, like galactose or ethylene glycol, rather than with the more volatile substances of the anesthetic class which are, for the most part, ex-

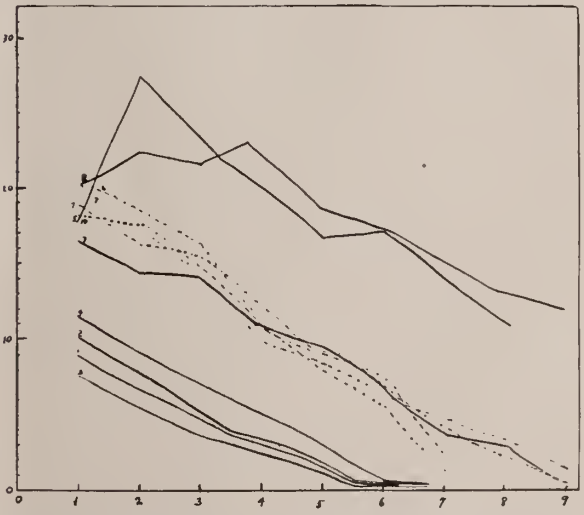

Chart 2.—Olive View experiments. The concentration of alcohol in the blood after oral administration. (The horizontal figures represent hours, the vertical mg. alcohol.)

creted rather than oxidized. The rate of oxidation of glucose, by the unicellular algae-Chlorella, appears to be independent of the concentration of glucose present over a rather wide range.[69]

There is, however, a small amount of alcohol excreted, and this may well be expected to follow a curve similar to that of the excretion of the other related substances; that is, with greater excretion, both in the expired air and in the urine, with the higher concentrations in the blood stream. To this extent a deviation from the straight line-fall in the alcoholic concentration of the blood might be expected; but this, at most, is but a minor effect.

Every possible explanation for the existence of tolerance to alcohol, that is, the ability of some individuals to drink more than others, without showing any more effect from it, has been invoked by at least one worker in the field. The commonest lay notion is that the habitual use of alcohol leads to an increased power of all of the tissues of the individual to withstand the drug. It has been suggested that the existence of endogenous alcohol accounts for the existence of a certain amount of tolerance in all of us, and that the continued use of alcohol is to be encouraged, therefore, as a means of strengthening the entire body, particularly against alcohol, but by inference against other injuries as well.

There is practical unanimity of scientific opinion that this is not the case. The accumulated records of literally thousands of instances where the signs and symptoms of alcoholic intoxication have been correlated with the concentration of alcohol in the blood and tissues have conclusively shown that they go hand in hand.[15-37] Not one instance has been reported where evidences of alcoholic intoxication could be elicited, even with the finest instruments, when the concentration of alcohol lay below 0.01 per cent; not one case was found where ordinary clinical signs of drunkenness were shown where the concentration of alcohol lay below 0.1 per cent; not one person was observed who lived long enough to attain a concentration of 1.0 per cent. Although widely varying amounts had been consumed in order to bring them up to such concentrations, the symptoms observed in the individuals examined ran *pari passu* with the concentration of alcohol in the blood, brain, breath or other material examined.

It is true that a few studies made of habitually heavy users of alcohol have shown higher concentrations in the blood than in abstainers;[46] but these were, for the most part, individuals who had been incarcerated for suffering from the effects of alcohol, and so probably, despite their long use, had failed to develop tolerance to the drug, but had, on the contrary, been exceptionally susceptible. It has even been suggested that excessive use may itself lead to a loss of tolerance to alcohol.

In some studies slight discrepancies were noted between the concentrations observed and the symptoms described,[34] but the differences were generally slight, and often to be explained by the peculiarities in the distribution of alcohol or in the method of making the determinations.

It has also been observed that at the same height of the alcohol in the blood during the period of its fall the intoxication is less marked than when it was rising.[3] This is restricted to a small range of variation and may be due to lowered reactivity following the drug; so that, for example, an individual who is voluble while becoming intoxicated may be silent while sobering up, or to some other psychological mechanisms, rather than to a true "acute tolerance" resulting from the higher level.

In general, it is a fairly safe conclusion that the effects of alcohol as manifested are proportional to the concentration of alcohol in the blood, brain and other tissues, and that the mechanisms of tolerance, therefore, must be concerned with lowering this level, rather than with increasing the ability of the tissues to withstand it.

ALCOHOL IN THE BLOOD OF HABITUÉS AND ABSTAINERS

The failure of the alcohol to reach as high a level in the blood of habitués as in abstainers may be considered, theoretically, to result (1) from destruction in the gastro-intestinal tract before absorption takes place; (2) from slowing in absorption from the gastro-intestinal tract or retarded passage into the general circulation; (3) from increased oxidation in the liver before reaching the general circulation; and (4) from storage somewhere in the body, removing it from the circulation, as well as (5) from more rapid oxidation or destruction in the body, or (6) more rapid excretion in the expired air, urine, etc. Each of these possibilities has been advanced by some workers, and ignored by others. A review of the observations thus far reported, and of a few experiments performed at Olive View to clarify points remaining doubtful, may help to evaluate their relative importance.

The hypothesis that the gastro-intestinal tract of alcoholic habitués contains enzymes, bacteria or other agents capable of oxidizing or otherwise destroying alcohol, or that such agents, present in the normal gastro-intestinal tract, are increased or given increased time to act in the case of alcoholics, appears quite ingenious and would give a very simple explanation for many of the phenomena observed. Unfortunately, no direct evidence of such phenomena can be obtained. Although it has been shown that alcohol introduced rectally or into the colon is very rapidly absorbed, the weight of evidence indicates that on ingestion the alcohol is practically entirely taken up in the stomach and small intestine, and that none remains to reach the large intestine.

The bacterial flora of the small intestine would not, ordinarily, be expected to be sufficiently abundant or varied to give rise to much effect on the alcohol that reaches them. On the other hand, no enzymes capable of destroying alcohol have so far been reported as occurring naturally in the digestive secretions in man or animals. It is possible, perhaps, that absorption of alcohol in some tolerant individuals would be so delayed that it would not take place until some of the alcohol had reached the cecum and large intestine, and that bacterial decomposition of the alcohol would

TABLE 3.—*Average Amount of Alcohol Destroyed Per Hour by Incubation With One Gram of Normal Guinea Pig Tissue.*

Heart	0.29 mg.
Muscle	0.27 mg.
Liver	0.25 mg.
Intestine	0.05 mg.
Stomach	0.00 mg.

here occur; but the extent and frequency of such an occurrence would not be expected to be of clinical significance. Experiments performed at Olive View showed that the normal contents of the gastro-intestinal tract of guinea pigs and rabbits do not cause the destruction of perceptible amounts of alcohol. (See Table 3.) Such experiments should be repeated, using the contents of the various parts of the gastro-intestinal tract of persons and animals known to have a high tolerance for alcohol, to rule out finally any suspicion that this mechanism might, in some instances be responsible for a part, at least, of the tolerance observed.

ABSORPTION OF ALCOHOL FROM THE INTESTINAL TRACT

Delay in the absorption of the alcohol from the intestinal tract has been inferred from the observations which showed that the concentration of alcohol in the blood of habitués reached its maximum at a later time than did that in abstainers.[70] Mere delay in absorption, while oxidation of the alcohol absorbed had continued at the usual rate, would then account for the fact that this later peak would be reached at a lower level.[39] The fact that the rate of reduction in the alcohol in the blood thereafter appears to run parallel with that of abstainers would tend to support this suggestion,[55] and the fact that measures which are known to retard the absorption of alcohol from the gastro-intestinal tract, such as dilution, admixture with or preceding by food, especially of fatty materials, excitement, disease, etc., have a similar effect on its concentration in the blood, may lend further support to this suggestion.[3]

Whether this delay in absorption is the result of functional or organic changes in absorption and secretion from the gastro-intestinal tract, in the retardation of the splanchnic circulation, or from organic changes in the mucous membranes resulting from alcoholic gastritis or enteritis, or from alcoholic hepatitis slowing the blood supply and the passage of the alcohol in the blood through the liver, has not been shown. The failure to find increased amounts of alcohol in the gastro-intestinal contents of habituated animals [43] suggests that it is not simple delay in removal from the intestinal lumen, but that, perhaps, the alcohol may be held in the tissues of the gastro-intestinal tract itself.

Such a "binding" of the alcohol in the tissues of the intestine has been reported to occur in isolate loops following the rise in the alcoholic content of the blood,[64] and might be possible in individuals tolerant to alcohol, but no further data on this supposition is available. Changes in the chemical and physical composition of the mucosa, such as the deposition of fats, for example, might possibly act in this manner, as might also slowing in the circulation; and similar effects might be noted in a liver damaged by previous alcoholic excess, but this is still merely conjectural in the absence of specific observations.

The ability of surviving liver tissue, either minced or in perfusion experiments, to destroy alcohol, has been reported,[74] and it has been suggested that an increase in such power might occur in instances of "tolerance." Although such action has not been observed by some workers,[75] experiments on normal animal tissues at Olive View have shown that there is, indeed, a progressive destruction of alcohol incubated in the presence of living liver tissue. (See Table 3.) The rate observed, however, little more than that found in the entire body, would be insufficient to account for the large amounts that must be so cared for if this were the main mechanism of tolerance, and the respiration experiments, which show that the respiratory quotient continues to be depressed for a long time after the ingestion of alcohol,[73] indicate that such increased destruction during the stage of absorption does not take place to any appreciable extent.

DELAYED ABSORPTION AND TOLERANCE

Not all observers, however, have noted delayed absorption of alcohol accompanying the development of tolerance. In fact, the reverse has been reported a number of times—a more rapid rise in the concentration of alcohol in the blood, with an earlier, although lower, maximum point. The finding of larger amounts of residual alcohol in the gastro-intestinal contents in abstainers has also been noted.[43] Since excitement, pain, etc., may delay absorption, it is possible that these may play more of a rôle in the delayed absorption in abstainers noted in some experiments. The fragmentary figures available, even after the intravenous injection of alcohol, also suggest a lower level in the alcohol values in the blood in habitués, as compared with abstainers. The "crossed tolerance" of alcoholics to inhalation anesthetics also requires attention. Although these observations do not represent the more usual findings, they may not, in the absence of data on a larger number of subjects, be entirely ignored. They suggest, in fact, that the location of the peak and the rate of gastro-intestinal absorption is rather a matter of individual differences, or of temporary local conditions, than an important factor in the development of tolerance, at least in some instances. In such cases, some other mechanism, following the absorption of the alcohol, must be invoked to account for the lower levels encountered.

There is no reason to believe that alcohol may be stored in the body in any other form, analogous to the glycogen storage of carbohydrates. It is conceivable, however, that bodies containing larger amounts of phospholipid, fluid, or other materials capable of holding larger amounts of alcohol, might show lower levels of alcohol in the circulating blood, following equal dosage per unit weight of the entire body, than those in which such depots are absent. Slight relative increase in the alcohol-holding capacity of various tissues might be imagined, for example, in cases with slight decomposition and edema, in instances of alcoholic or other types of obesity, and in certain other normal and pathological variations; but there have been no observations as yet to indicate that it actually occurs. If true, it might allow a slight increase in the oxidation rate without revealing it in the curves of blood concentration.

EXCRETION OF ALCOHOL

The excretion of alcohol is always quite small, but may vary from one to more than 10 per cent of the entire amount ingested. This amount may be altered by any factors which increase the total amount of the excretions—urine, saliva, exhaled air, etc. Accordingly, the use of water or diuretic drugs to increase urinary excretion,[6] and of carbon dioxid inhalations,[5] and other methods of increasing the respiratory volume,[4,7] may serve perceptibly to accelerate the rate of decline in the alcoholic content of the blood. Since, however, the concentration in the excretions is proportional to the concentration found in the blood, it is not probable that individuals with a high tolerance, who have a lower alcoholic content in the blood to begin with, would show any increase in the total amount so excreted, and in any case this would be far too low to account for the differences in the levels found in individuals with high and low degrees of tolerance to alcohol.

The increased excretion due to increased respiratory volume does, however, constitute a factor in perceptibly lowering the alcoholic content of the blood in cases of fever,[1] exposure to lowered air pressure as at high altitudes,[4] from muscular exercise,[7] and may, perhaps, be a factor in the lowering reported following the administration of dinitrophenol.[8-9]

RATES OF OXIDATION IN HABITUÉS AND ABSTAINERS

A number of workers have insisted that the alcohol is more rapidly oxidized and destroyed in the tissues of habitués than in the bodies of abstainers.[43,71,72] The chief basis for this belief lies in the lower levels of alcohol found in the blood stream of the habitués, following the administration of alcohol by mouth, together with observations indicating more rapid, rather than slower absorption from the gastro-intestinal tract. Even if these findings should be generally confirmed, there are, as has been shown, a number of other possible explanations for the differences presented.

Examination of the data available on the concentration of alcohol in the blood in persons habituated to the use of alcohol as well as in abstainers shows that, although in the former the maximum, whether occurring earlier or later than in the latter, occurs at a lower level, the rate of decline in the two sets of figures are generally quite parallel, indicating that the destruction of alcohol, after the first hour or two is passed, proceeds at about the same rate in both groups. This rate is, in most cases, in the neighborhood of 0.2 milligrams per cubic centimeters per hour, so that it would take, in the average, about five hours for the concentration of alcohol to drop by one milligram per cubic centimeter. (See Chart 3.)

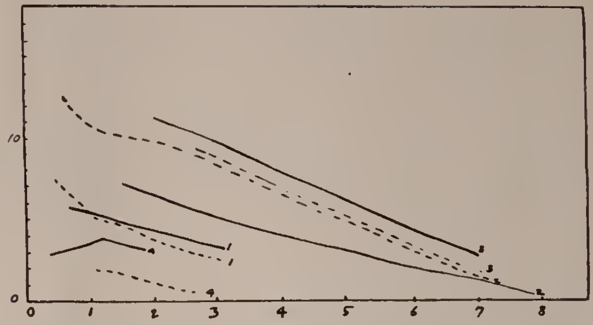

Chart 3.—Reported cases. The concentration of alcohol in the blood of man after oral administration. (The horizontal figures represent hours, the vertical mg. alcohol.) (1) Fleming and Stotz, (2) Schweisheimer, (3) Bogen, (4) Miles. ————— Abstainers. .... Habitues.

The differences in the actual level of alcohol in the blood of abstainers and habitués given the same dose per kilogram of body weight, however, is often several milligrams per cubic centimeter.[18] In other words, the habitué must, in the time taken to reach his peak value, have destroyed more alcohol than would ordinarily be destroyed by others, or by himself at a later stage, in five to ten times that period. Studies of the respiratory quotient following the ingestion of alcohol show that this early rapid combustion does not occur, and accordingly the facile explanation of increased oxidation as the cause of tolerance is inadequate.

There is considerable doubt, in fact, whether the rate of oxidation of alcohol in the body may ever, under any conditions, really be changed. As has been shown, it appears to be independent of the concentration of alcohol in the blood stream, as well as independent of the ability of the subject to tolerate large doses. Much controversy has developed around the problem as to whether alcohol may be utilized in the performance of muscular work, in addition to its recognized function of producing heat. Despite many complicated and erudite attempts to demonstrate such an effect, it must be concluded that careful studies have failed to establish it conclusively, and that, if present at all, it must be true, but to a very limited extent. The accelerated rate of disappearance of alcohol from the blood stream in subjects given exercise may well have represented increased excretion through greater respiratory volume, rather than the actual oxidation of alcohol within the body.

The same may, perhaps, be true of the instances of increased tolerance to alcohol reported in cases of fever, increased metabolic rates, or the administration of dinitrophenol.

IN CONCLUSION

It appears, then, that not one of the various mechanisms described for the development of tolerance to alcohol may be accepted as complete explanations for the phenomena observed. The rôle of slowed absorption is, perhaps the best established and the most generally effective, but it does not appear to explain all instances observed. Increased rate of oxidation has been frequently invoked, and may exist in small begree, but is not yet proved, and is certainly inadequate to explain the differences existing. Increased excretion, increased amounts of alcohol-holding materials in the body, and even enteric destruction of alcohol, as well as possible hepatic barriers may play a slight, but certainly never an important rôle in this connection. An increased ability of the individual cells and tissues to withstand the effects of alcohol has not yet been demonstrated. By far the greatest reliance must be placed on the development of sufficient judgment to avoid the ingestion of quantities of alcoholic liquors which may lead to deleterious consequences—physical, mental, moral; social and economic, both immediate and remote.

Olive View Sanatorium of the County of Los Angeles.

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DISCUSSION

C. H. Thienes, M. D. (Department of Pharmacology, University of Southern California, Los Angeles). — In general, one or more of three major physical factors may be involved in drug tolerance: delayed absorption, as with white arsenic; increased elimination or detoxication, as with chloral hydrate; and decreased tissue susceptibility, as with morphin. A fourth factor of psychologic change must not be overlooked. Experiments of recent years have thrown much doubt on early hypotheses concerning drug tolerance, and new concepts are being proposed. We must, therefore, approach the problem with open minds, testing each factor from every conceivable point of view. Much loose thinking has clouded the issues involved, due to inability to analyze the problem into its various parts. As pointed out by Doctor Bogen, the observation of a blood alcohol lower in habitués than in abstainers, after a given dose of alcohol by mouth, has been interpreted by some as due to delayed absorption, by others as due to hastened oxidation, excretion or other means of elimination. Obviously, still other possibilities remain, and beyond these is the fact that there is not unanimity of observation. Too little attention has been given to psychologic factors, such as conditioning of reflexes. Experiments on nicotin tolerance, carried out in the pharmacology laboratory at the University of Southern California, afforded some evidence in this direction.

Confusion of our understanding has been due in part to the misuse of the terms "tolerance," "habituation," and "addiction." Indeed, there is still no uniform definition for any of these terms. Uniform definitions are lacking, probably because of our lack of understanding of major factors or mechanisms involved in each concept; therefore, as new information is obtained, the concepts represented by the terms change. Writers of a few years ago felt free to consider tolerance, addiction and habituation as phenomena distinct from each other; today the tendency is to look upon these phenomena as closely interrelated. Thus Tatum, in his analysis of the subject in "Physiological Reviews" (1931), emphasizes selective tolerance for the depressant effects of morphin, with no tolerance for the exciting effects, as a causal factor in the production of morphin addiction.

Doctor Bogen's careful analysis of the alcohol question, and his own experimental contributions, both in the present and in earlier publications, have done much to clear our thinking on this important problem.

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Henry W. Newman, M. D. (2267 Sacramento Street, San Francisco).—Doctor Bogen has presented us with an exhaustive critical review of the literature on the pharmacology of ethyl alcohol, which, with his original work, represents a real contribution to our understanding of this subject.

The outstanding point of the whole paper strikes me as being the delineation of our lack of any definite knowledge of the mechanism of the tolerance to alcohol said to be possessed by certain individuals; a subject on which any layman would not hesitate to venture an authoritative answer. The fact remains, however, that we are entirely in ignorance of whether or not an individual may acquire a tolerance to alcohol, or what the mechanism of such tolerance may be.

Although we lack any positive knowledge of the nature of tolerance, we know fairly definitely that a number of factors previously proposed to account for it are in no way adequate. The careful work of Fleming and Stotz showed that habitual drunkards, far from absorbing alcohol more slowly from the gastro-intestinal tract, absorb it more rapidly, and thus attain their maximum concentration sooner. Moreover, I have shown that dogs, after habituation to large amounts of alcohol, do not burn the substance any more rapidly—as evidenced by the rate of decline of the alcohol content of their blood after intravenous injection of alcohol—than they did before the period of habituation. Thus, if habitués absorb alcohol as rapidly as abstainers, and metabolize it at the same rate, any acquired tolerance (if such there is) must be due either to a decreased penetration of the nervous system, or to a lessened susceptibility of the nerve cells to the drug. The recent work of Fleming and Stotz, who found no significant difference in the concentration of alcohol in the spinal fluid of habitués and abstainers after a test dose, seems to make the former hypothesis unlikely, leaving us with decreased cellular sensitivity as the only tenable theory. This is now under investigation in our laboratory.

That alcohol is unique among our common metabolites in being oxidized at a constant rate, regardless of its concentration in the body, has long been accepted, based on the thorough investigations of Mellanby and Widmark. Thus the assertion of Haggard and Greenberg that this was false immediately inspired further careful investigation of this point. It is with gratification that I find Doctor Bogen's work on this problem to be entirely in accord with my own, supporting the thesis of the older investigators that alcohol is burned at a constant rate, and effectively refuting the contentions of Haggard and Greenberg.

INTRACAPSULAR FRACTURES: NECK OF THE FEMUR*

A STATISTICAL SURVEY OF END-RESULTS

By Merrill Coleman Mensor, M.D.
and
Earle T. Dewey, M.D.
San Francisco

Discussion *by Paul E. McMaster, M.D., Los Angeles; Keene O. Haldeman, M.D., San Francisco; E. W. Cleary, M.D., San Francisco.*

THE treatment of fractures involving the neck of the femur of an intracapsular nature has always been an important surgical problem, and in spite of the vast amount of work, both experimental and clinical, that has been done on this condition, and the tremendous strides that have been made in the care of other common traumatic bone injuries with marked improvement in end-results and reduction of disability, this fracture still presents to the profession as great a mystery in how it should be handled as it did over one hundred years ago. In spite of the addition of the x-ray to our armamentarium, the title, "The Unsolved Fracture," used by Kellogg Speed in a recent article, accurately sums up the present state of our knowledge and ignorance.

COMMENT ON THE LITERATURE

A cursory review of the literature immediately gives us the impression that the very problems confronting the surgeon of today were faced by the men of over one hundred years ago. They were at that time equally cognizant of the difficulties now encountered, obtained end-results equally as bad as our own, and used various types of apparatus and manipulations, the principles of which are but little changed from those now commonly used.

Baron D. J. Larrey, in a monograph published in 1823, on treatment of the fractured neck of the femur, discusses the use of the spica bandage, and deprecates the use of extension for traction, stating that this latter type of procedure has been used in all apparatus from the time of Hippocrates and Avicenna. It is his opinion that, instead of assisting nature in the reorganization, it aggravates the evil. He believes that primary reduction of the fracture is simple and, therefore, there is no need of extension and traction on the fragments. Various pulmonary conditions and other complications, with which we are altogether too familiar, are spoken of as the result of this treatment. He is of the firm opinion that lack of fixation with increased motion is one of the causes of nonunion. The rigid spica bandage, very similar to our plaster of paris, was used in an attempt to maintain fixation after reduction was done.

Sabatur is quoted as using a stuffed straw-bed, with the limb held immobilized by well-filled oak-chaff bags, which is practically a parallelism for the sand-bag treatment, still occasionally used by the modern surgeon. Splints, both metal and wood, strikingly similar to the Thomas splint of today, double splints, using the same principle as the recently developed Jones traction splint, Buck's extension, the double incline plane, are all mentioned and have their advocates and critics.

J. H. Burge, 1859, advocated the use of traction with adhesive tape and counterpressure against the ischium of the patient, allowing him freedom to sit up and move about rather than some of the more cumbersome types of apparatus, which prevented anything but the supine position.

NONUNION DIFFICULTIES

Throughout this entire mass of literature, one is struck by the large percentage of nonunion and the attempts of the various surgeons to explain the condition. In seeking an explanation of the failure of union, such men as E. M. Moore, Nicholas Senn, and Levi Cooper Lane, have offered theories and experimental work. Theories in callus formation were everywhere advanced. There is the so-called vascular theory which requires apposition of the bony ends, allowing the blood vessels to unite across the fracture site to form the callus. Secondly, there is the formation of callus by the aid of the periosteum. Advocates of this theory point out at great length the absence of periosteum around the neck of the femur. Thirdly, there is the interposition of a peculiar albuminous substance between fragments. This is undoubtedly similar to a preosseous substance, recently described by Leriche and Policard in their monograph on "Growth of Bone," recognized by these investigators before the advent of the x-ray and microscope.

The causes of nonunion are given as lack of circulation of the head, absence of periosteum about the neck of the femur, lack of a true membrane, which would help make a mass capable of retaining bones in close contact and assist in the generation of callus. The fact that the fracture is entirely intracapsular, allows effusion of synovial fluid which causes motion and effects callus in a chemical manner. This is contrasted with extracapsular fractures in which the blood is not changed by the synovial fluid and a definite hematoma formed, which allows the progress of union and callus formation. Although the theory of the retardation of union by synovial fluid was advocated by Charles Bell in 1824, he rather typifies the pessimism of that day in the following quotation, "All our hopes in succeeding in curing a fracture of the neck of the thigh bone have been successively abandoned."

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* From Orthopedic Service, Laguna Honda Infirmary, Stanford University Medical School and San Francisco Department of Public Health.

Read before the General Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

EXPERIMENTS OF NICHOLAS SENN

In 1883, Nicholas Senn did some very interesting experimental work on animals. He found that fracturing the necks of the femur of dogs and immobilizing them invariably gave nonunion. However, in a series of some thirty-odd cats, in which the fracture was immediately followed by pegging of the bone either by a nail or a bone peg through the neck, the percentage of union was considerably higher. The cause for nonunion of intracapsular fractures was attributed to inability to maintain perfect coaptation and immobilization of fragments during the time required for bony union to take place. The operative procedure gave a perfect degree of coaptation and immobilization of the fragments. The patient could be placed in any position in bed, or even be taken out of doors as soon as the dressing was applied, thus preventing excoriation and diseases, and prolonged confinement in bed in a recumbent position. How similar is this advocacy to the use of the Smith-Petersen nail and the immediate bone-pegging, now so commonly heralded as "the answer to the maiden's prayer."

RECENT METHODS TO SECURE MOBILIZATION

We then progress to the era of the Whitman abduction treatment, in which he, perhaps inadvertently, reverts to the theory and methods of immobilization of Larrey, some half-century before. This, likewise, had its vogue with variable success, but the large percentage of nonunion was still unanswered. We find nailing of the fragments again adopted, as aseptic surgery makes this procedure less hazardous to be cast in the discard, and recently revised with some mechanical improvements advocated by Smith-Petersen.

Very lately splendid mechanical devices by Jones of Grass Valley, California, and Anderson of Seattle, have given us a means for perfect anatomical replacement of fragments, but not a sufficient increase in the number of bony unions obtainable by their methods to warrant universal adoption.

It is, likewise, interesting to note that Brainard, a century ago advocated boring through the fractured end of the bone in cases of delayed or nonunion to stimulate callus formation. This has been very recently advocated by some of our contemporaries in the treatment of such cases.

It is our hope that we have portrayed from the above résumé the present status and lack of progress made in the therapy of fracture of the neck of the femur, and believe by the presentation of the following statistical analysis to further demonstrate the need of a coördinated effort on the part of the surgeons to devise a uniform procedure that will improve the end-results in this disabling condition, or at least demonstrate the scientific causes for the nonunion, so a prognosis can be given with some assurance.

MATERIAL INCLUDED IN THIS SURVEY

This survey represents a series of 148 consecutive cases, consisting of eighty-nine intertrochanteric, fifty intracapsular, six shafts, and three pathological fractures of the femur, treated by many competent surgeons of the San Francisco area on the staffs of the University of California and Stanford University in the past seven years, by various accepted methods. It constitutes all of the cases of this nature admitted to the Laguna Honda Infirmary of San Francisco, for a period extending from January, 1928, to July, 1934. As we are particularly interested in the intracapsular fracture, we have found that in fifty cases of this type, forty-four were treated at the San Francisco Hospital, five at the Laguna Honda Home, and one at the Saint Francis Hospital.

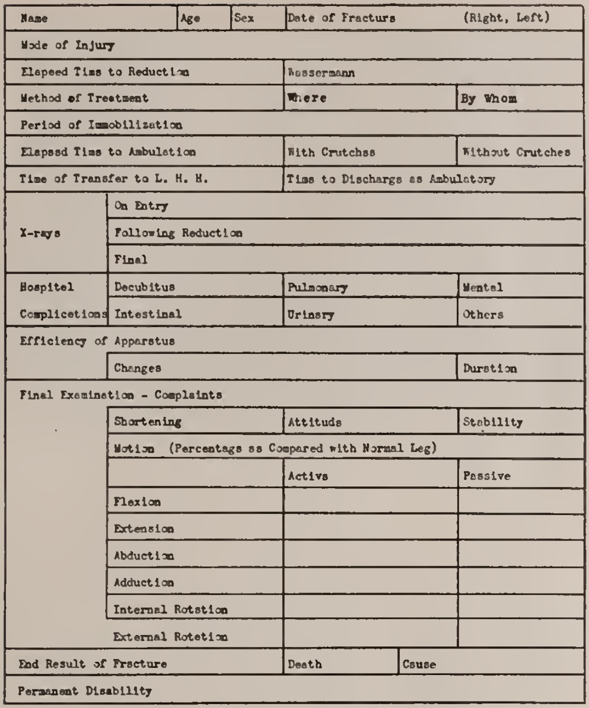
METHOD OF ANALYSIS

Our method of analysis is shown by a typical chart, here illustrated, which covers the important points of age, sex, the elapsed time of reduction, method of treatment, period of immobilization, hospital complications, and end-results, with the amount of permanent disability present in those cases in which a final follow-up and check-up examination was possible.

Following the accompanying outline, using a separate form for each individual patient, it was found that out of 148 cases studied, there was approximately 33 per cent of the cases of the strictly intracapsular variety. Of these, twenty-seven were males and twenty-three females. The fractures involved the right lower extremity in twenty-one cases, and the left lower extremity in twenty-nine cases. The average age of the patients was 61.8 years, the youngest being 45 and the oldest 90. The mode of injury was decidedly interesting. We were greatly impressed by the minimal amount of trauma necessary to produce a potentially serious injury. This revives the subject that has been discussed for over a hundred years, about the character of the osseous tissue and its relative circulatory changes as age advances. The causes of accident were delineated according to their frequency, as follows: Thirty-two patients sustained their fractures by a simple fall to the floor or street from a standing position. Seven fell down stairs of varying lengths. Five were injured in automobile accidents, four fell out of bed, and two were knocked down in fights. As the relationship between syphilitic infection and nonunion has always been a point of consideration in fractures, out of Wassermann tests made on forty-one of the patients, only seven were found to be positive.

ELAPSED PERIOD BETWEEN TIME OF INJURY AND REDUCTION OF FRACTURES

The elapsed time between the sustaining of the injury to the reduction of the fractures shows an average of nine and six-tenths days, the shortest period being two hours and the longest time three months and ten days. In four of the cases no data were available, in four others no attempt at reduction was made. Methods employed in the



Name	Age	Sex	Date of Fracture (Right, Left)
Mode of Injury			
Elapsed Time to Reduction		Wassermann	
Method of Treatment		Where	By Whom
Period of Immobilization			
Elapsed Time to Ambulation		With Crutches	Without Crutches
Time of Transfer to L. H. H.		Time to Discharge as Ambulatory	
X-rays	On Entry		
	Following Reduction		
	Final		
Hospital Complications	Decubitus	Pulmonary	Mental
	Intestinal	Urinary	Others
Efficiency of Apparatus			
	Changes		Duration
Final Examination - Complaints			
	Shortening	Attitude	Stability
	Motion (Percentage as Compared with Normal Leg)		
		Active	Passive
	Flexion		
	Extension		
	Abduction		
	Adduction		
	Internal Rotation		
	External Rotation		
End Result of Fracture		Death	Cause
Permanent Disability			

Fig. 1.—Chart used for individual analysis.

reduction of this fracture utilized a wide range of accepted therapy. Several of these patients, after an unsuccessful attempt by one method, were treated by two or three other types of procedure. In two cases the records failed to reveal sufficient data as to the technique employed. The following methods were employed and are enumerated according to frequency.

Wilkie boots, 16
Whitman procedure, 10
Jones traction splint, 4
Buck's extension, 3
Skin traction, 2
Resection of the head, 1
Multiple drilling, 1
Thomas splint, 6
Double plaster of paris spica, 14
Autogenous peg, 3
Sand bags, 3
Skeletal traction, 1
Whitman reconstruction, 1
Sheehy frame, 1

SOURCES OF THE CLINICAL MATERIAL

These patients were treated by twenty different surgeons (on the staff of the San Francisco Hospital) from the University of California and Stanford University Medical School; twenty-five cases were treated on the University of California service and nineteen on the Stanford service. Five cases were primarily reduced at the Laguna Honda Infirmary.

The period of immobilization following these various procedures showed an average of sixteen weeks, the shortest time being seven weeks and the longest thirteen months. There were eight cases in which the date of removal of immobilization was not recorded in the record.

The elapsed time, from the date of the fracture to the date at which the patient first began weight-bearing with crutches, showed an average of twenty-five weeks, the shortest time being ten and one-half weeks and the longest seventy-nine weeks. This does not include thirty-three patients who never left their beds, following their accidents.

INFORMATION SECURED THROUGH X-RAY EXAMINATION

Review of x-rays available for study, in forty-one of the cases showed the typical deformity of fracture of the neck with upward and backward displacement of the shaft combined with varied amounts of external rotation. The average amount of displacement resulted in about one inch of shortening, and it was frequently observed that in those cases unsuccessfully reduced, this was increased rather than decreased, following manipulation. In nine patients x-ray data, following reduction, were not available. In the remaining forty-one, twenty-one showed good anatomical replacement of the fragments; ten showed passable reduction, sufficient to obtain bony union with some deformity; ten patients had poor and incomplete reduction. Considering these x-rays, we must admit that our criteria for the above conclusions are necessarily limited, as it has been only within a relatively recent period that lateral x-rays of fractures of this character have been introduced. Some of the cases which are classified as excellent might have shown incomplete reduction had lateral x-rays been available. The criterion adopted for passable reduction required approximately three-quarters of the fractured surfaces to be in apposition. The final x-rays in those cases of nonunion showed various degrees of absorption of the neck of the femur up to almost complete obliteration. In some, in spite of evident nonunion, the character of the detached head indicated that it was still viable, while in others marked increase in density, when contrasted with the adjacent bone, resulted in the presumptive death of the head. In three patients in whom a definite diagnosis of union was made in their records, attempted confirmation by physical examination and further x-rays, showed a characteristic nonunion with good functional results.

COMPLICATIONS ARISING IN THE CONVALESCENT PERIOD

A physician who has had a patient suffering from this type of injury under his care realizes the importance of good nursing and the complications that are apt to ensue, resulting not alone in unfavorable end-results relative to the fracture, but often in the demise of his patient. In this series thirty-three cases, or 66 per cent, had definite complications during their convalescent period. Nineteen cases developed decubiti, many so extensive that the type of treatment instituted had to be discontinued. This complication was found as decidedly prevalent following the use of immobilizing plaster, including part of the trunk. The plaster frequently became soiled by perspiration and excreta, difficulty was undoubtedly entailed in keeping the skin healthy and dry, and not uncommonly upon removal of the spica, decubiti, involving the entire sacral area, often extending to the osseous structures, was noticed. In contrast to this, in those patients treated by apparatus which did not necessitate maintenance in

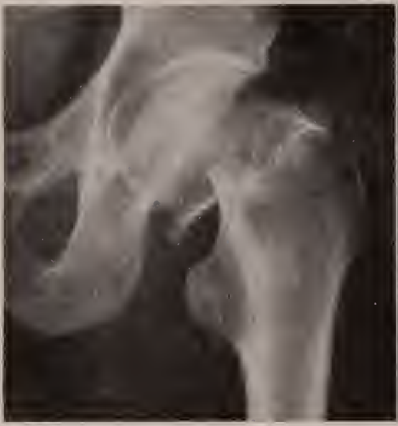


Fig. 2.—Typical case showing recent intracapsular fracture of femur.

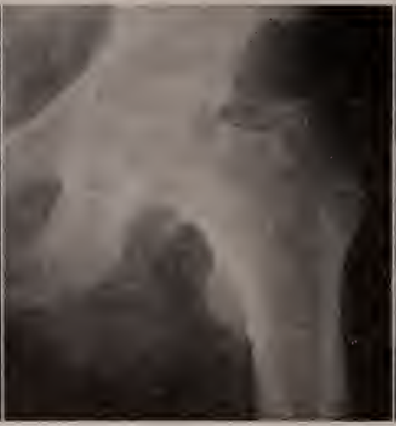


Fig. 3.—Same patient demonstrating excellent anatomical reduction.

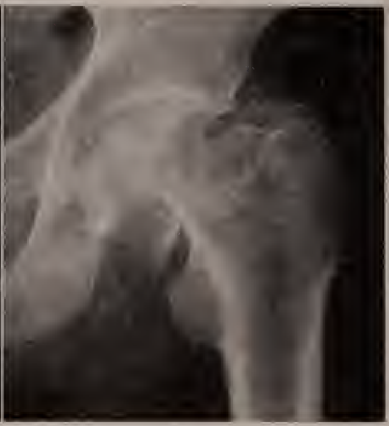


Fig. 4. — Same patient, showing typical nonunion.

the supine position and allowed free access to the buttocks and lower back without pelvic fixation, complications of this nature rarely occurred. The next most frequent complications were pulmonary and genito-urinary. Ten cases developed pneumonia shortly following the accident, which was attributed to the supine position necessitated by the method of treatment used. Ten had urinary disturbances, incontinence and cystitis being the most common findings. Gastro-intestinal complications developed in eight cases, typified mostly by distention, partial ileus, and inability to pass flatus per rectum. In a few cases the condition progressed to the point where vomiting became of serious importance. Mental changes were noted in seven cases and seemed to bear no relationship to advanced age of the patients, as one of the most serious cases of mental aberration occurred in a relatively young individual. Improper application of the apparatus caused such extreme discomfort to three of the patients that the method of procedure had to be changed. One patient developed a peroneal palsy during the use of a Thomas splint.

MORTALITY FIGURES

The mortality of this series showed sixteen deaths, 32 per cent, the average lapse of time to death following initial injury being six months. the shortest one week, and the longest three years and four months. All of these patients were still bedridden as a result of their fracture. Death cannot be attributed to the fracture *per se* in some of these cases. Chronic cardiovascular disease accounted for six, carcinoma of the stomach one, general paresis one, diabetes one. Deaths directly attributed to the fracture resulted in four from general sepsis due to extensive decubiti; pneumonia accounted for two; agranulocytosis, secondary to the use of large doses of pyramidon for the relief of pain, caused one.

HOSPITALIZATION PERIODS

The average period of hospitalization in the San Francisco Hospital in the forty-four cases treated by them was seventy-eight days, the shortest being eight days and the longest four hundred and ten days.

COMMENT

The result of this survey has demonstrated that, in spite of treatment rendered by a large number of competent surgeons in San Francisco, using various types of methods in their therapy, the end-results obtained in the care of this fracture are decidedly poor. There was not a single case in the series in which complete bony union was demonstrable.

The opinion is prevalent in many circles that nonunion results in a permanent crippling, causing almost a total disability. We believe that this error has arisen because of diagnosis based solely on x-ray findings, rather than on accurate analysis of the patient's functional ability. We have found that eleven of the cases examined demonstrating a frank nonunion are ambulatory with a minimal amount of discomfort, some using a cane and some without support of any kind. They all have shortening and a definite limp, but are able to take care of themselves without assistance and perform many types of useful work. At the present time there are seventeen bedridden, eleven ambulatory, six ambulatory on crutches. This, in our opinion, definitely contradicts the impression that nonunion is incompatible with future usefulness of the injured extremity. In the thirty-four living cases, final check-up examination was possible in twenty. Of these we found the average range of motion to be limited as follows: Flexion, 50 per cent; extension, 70 to 75 per cent; abduction, 30 to 40 per cent; adduction, 10 to 15 per cent; internal rotation, 95 to 100 per cent; external rotation almost unrestricted.

SUMMARY

One hundred and forty-eight cases of fractured femur entering the Laguna Honda Home have been analyzed over a period of six and one-half years. Of these, fifty cases were found to be definitely intracapsular in type. Bony union was unable to be demonstrated in any case in the series. The mortality rate was 32 per cent, although the average death following the initiation of the fracture was six months, thereby reducing the mortality directly attributed to the fracture to a much smaller percentage. Eleven cases of definite non-

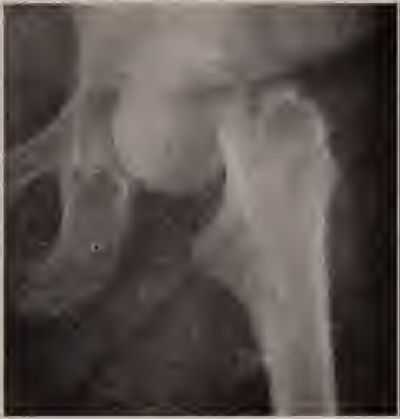


Fig. 5.—Recent unreduced fracture, intracapsular of femur.

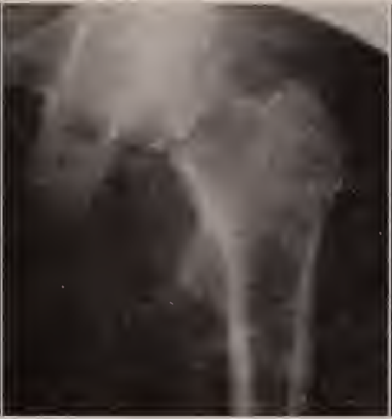


Fig. 6.—Same patient showing excellent anatomical replacement.

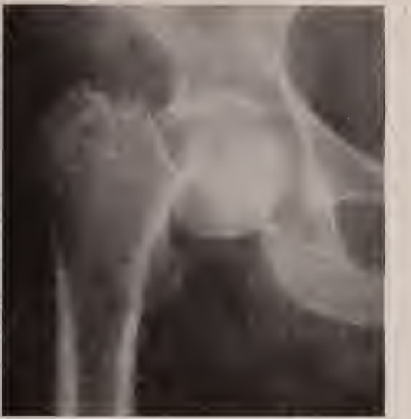


Fig. 7.—Same patient six months later with typical nonunion.

union are ambulatory, the patients carrying on some type of occupation.

CONCLUSIONS

1. The present methods used in the treatment of intracapsular fracture of the neck of the femur are unsuccessful for the promulgation of bony union.
2. Nonunion of the fractures does not bear any direct relationship to the age of the individual in this series.
3. Nonunion is not incompatible with weight bearing and the carrying on of certain limited occupations.
4. Twenty-two per cent are ambulatory, without support.
5. Mortality in the series was 32 per cent.
6. The injury results in the majority of instances from relatively minor trauma.
7. Thirty-four per cent are still bedridden after a period of one to seven years.
8. Treatment directed at early activity of the patient seems to offer a more favorable prognosis and markedly reduces the morbidity of the complications.
9. Proper nursing care is as important as accurate reduction of the fracture.

490 Post Street.

DISCUSSION

Paul E. McMaster, M. D. (1930 Wilshire Boulevard, Los Angeles).—I wish to compliment the authors of the foregoing work, first, because of the large amount of good statistical data which they have accumulated, and, secondly, for the unbiased manner in which they have presented their study.

Clinicians who see and treat many intracapsular fractures of the neck of the femur know that the results are not encouraging, either for bony union or satisfactory function; or, in a number of cases for life itself, often irrespective of the type of treatment. Rather startling figures are presented in this paper, namely, no case in fifty intracapsular fractures of the neck of the femur resulted in bony union and, in addition, there was a mortality of 32 per cent.

Numerous new treatments for this fracture, as mentioned, are to be found in the current literature. Some are new, others are old principles with new applications. Although different ones of these methods are claimed to give excellent results, such does not obtain in the hands of the majority of clinicians. Hence, one sees the necessity for continuous investigative work in this special type of fracture.

A review of a large number of cases of intracapsular fracture of the neck of the femur at the Los Angeles County General Hospital has impressed me with a few fundamentals and results in the treatment. To begin with, there was a relatively low percentage of bony union. However, the mortality rate was lower than 32 per cent, as quoted above.

The necessity for lateral roentgenograms is imperative, as illustrated in the following case. In the anteroposterior view, as shown in the lantern slide I am exhibiting, the fracture fragments appear to be in direct approximation. However, the lateral view, as you can see, shows the fracture surfaces unopposed in any portion. Further, that roentgenologic interpretations are not always entirely accurate is illustrated in another case and by this next slide.

This shows the upper portion of the femur removed at autopsy from a woman in her sixties, who died of pneumonia, fourteen months after receiving an intracapsular fracture of the femoral neck. She had walked some on the leg, and clinical roentgenograms indicated a bony union. Even the specimen picture indicates bony union. A sagittal section of the specimen, however, reveals that the union was not bony, but cartilaginous and rubbery motion existed between the two fragments. This is the type of case which I believe explains why some patients who are supposed to have bony union, subsequently "break down" and result in nonunion and all the usual associated symptoms.

Another observation gained from this study was that bony union resulted in those cases in which there was little or no displacement of the fracture fragments, wherein adequate immobilization could be maintained in almost any type of treatment. This, I think, tends to minimize the deleterious effect of synovial fluid on the healing of these fractures; for with cortical breaks, as these cases show, and no periosteal covering, synovial fluid could infiltrate into the fracture site and still exert its often-claimed inhibiting influence to callus formation.

A further impression gained from this study was that in those cases with displacement of the fracture fragments, not only was adequate reduction necessary for healing, but complete and uninterrupted immobilization as well. In each case in which good reduction, as determined by anteroposterior and lateral roentgenograms, was obtained, which in turn was followed by slipping of the fragments (even though a fair portion of the fracture surfaces were still opposed) nonunion resulted. On the contrary, if no slipping occurred after reduction, irrespective of the type of treatment, bony union usually followed.

Thus, in addition to adequate reduction, the necessity is seen for complete and well-maintained immobilization, whether obtained by closed or operative procedures, both of which, I believe, have their place.

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Keene O. Haldeman, M. D. (350 Post Street, San Francisco).—It is worth while to study the failures that occur so frequently in intracapsular fractures of the neck of the femur. The foregoing careful analysis should point the way to a better treatment of such cases.

I have observed many of the patients so studied in the Laguna Honda Home, and can confirm the results which have been recorded. However, these cases are not a true cross-section of the end-results which were obtained in the San Francisco Hospital, because the patients whose fractures united were discharged, and those in whom union was delayed or absent were sent to the Laguna Honda Home. The authors have emphasized the fact that a good functional result may be found in those fractures showing a firm fibrous union, without demonstrable bony union.

The ideal treatment of intracapsular fractures will combine absolute fixation of the perfectly reduced fragments with early motion of the hip and activity of the patient. Recent advances toward this goal include the Smith-Petersen flanged nail, and the use of multiple Kirschner wires, the insertion of which is guided by radiologic examination at the operating table. In the absence of the equipment and experience that such methods require, it is possible to obtain good bony union in about two-thirds of these cases by means of manipulative reduction followed by the Whitman type of plaster spica cast. Patients treated by the latter method should be turned on the face twice a day, should carry out deep-breathing exercises, and should be given carbon dioxid inhalations during the first week. After six weeks, partial mobilization of the knee is started by the removal of the part of the cast on the posterior aspect of the calf and heel. The hip should be immobilized for twelve weeks or longer, depending upon the radiologic examination, which in all cases should include a lateral film of the neck of the femur as well as the customary stereoscopic anteroposterior views.

⁂

E. W. Cleary, M. D. (490 Post Street, San Francisco). Doctor Mensor has done a thing both courageous and worth while. He has constrained us to face stark reality, helped us to stop "kidding ourselves along," if a slang expression may be permitted.

When facts are thus honestly faced and the futility of miscalled conservative measures revealed, the way is paved for a more adequate therapy.

Fracture of the neck of the femur is a desperate emergency. Mere humans endowed with no supernatural powers may not hope to cope with it in degree of suffering and mortality inherent in a lesion which most frequently appears as part of the terminal experience of an organism near death from senility. Nevertheless, methods have been devised and adequate means found to reduce and internally fix the head fragment to the shaft. Already sufficient experience has been had with these relatively exact and positive measures to demonstrate that they are actually conservative, and that their use reduces suffering and complications, and gives the patient the best possible chance to recover.

Such papers as Doctor Mensor has presented help to lay a foundation of fact upon which we may eventually promote an adequate therapy for this lesion without the consequence that our therapy, because of its positive nature, will bring upon us undeserved blame for the considerable percentage of nonunions, complications and deaths, which are the unavoidable results of the severity of the lesion and the physical debility of the average patient.

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Doctors Mensor and Dewey (Closing).—The authors wish to thank Doctors McMasters, Haldeman, and Cleary for their discussions of the subject presented.

There are some points in discussion which we believe need elucidating. Doctor Haldeman has stated that these cases do not represent a true cross-section of end-results obtained in the San Francisco Hospital, because all united fractures were discharged and only those in which union was delayed or absent were sent to Laguna Honda Home. We believe this statement is somewhat in error, as the statistics show that the average period of hospitalization in the San Francisco Hospital, before discharge to the Laguna Honda Home, was seventy-four days, and that the minimum time hospitalized at the San Francisco Hospital was nine days. It is obvious that in an average of seventy-four days, in fractures of this nature it is impossible to determine whether bony union will ensue as a result of the therapy. We do, however, admit that the data is not entirely complete, and it is our intention within the next few months to analyze a similar number of consecutive cases over the same period at the San Francisco Hospital, thus securing definite figures as to the percentage of union obtained in those cases that were discharged directly from the San Francisco Hospital and not seen at the Laguna Honda Home. We also fear that Doctor Haldeman is somewhat too optimistic in his belief that two-thirds of these cases will result in bony union by use of the manipulative reduction and the Whitman type of plaster spica cast.

We heartily agree with Doctor Cleary that the most hopeful means of treatment of this fracture lies in some form of internal splintage which will absolutely fix the fragments. At present we are not completely convinced that the Smith-Peterson nail is the ideal method of treatment, but feel that the use of an autogenous bone peg in fresh cases accomplishes the necessary fixation, at the same time acting as a direct stimulation for osteogenesis.

Doctor McMasters has very rightly called attention to the importance of lateral x-rays in this fracture, and it is our belief, now that this technique is more or less a common practice, that many of the fractures in this series that were reduced by the operator, with apparent passible reduction, would have been given further treatment if a lateral roentgenogram had been made.

CATARACTS FOLLOWING THE USE OF DINITROPHENOL: A SUMMARY OF THIRTY-TWO CASES*

By Frank H. Rodin, M.D.
San Francisco

Discussion *by Warren D. Horner, M.D., San Francisco; Hans Barkan, M.D., San Francisco; Harold F. Whalman, M.D., Los Angeles.*

Cataracts following the use of dinitrophenol have been reported by Boardman,[1] Horner, Jones and Boardman,[2] Shutes,[3] Cogan and Cogan,[4] Lazar,[5] Kniskern,[6] and Allen and Benson.[7]

In this report I shall summarize thirty-two cases of cataracts, following the use of dinitrophenol, which have been observed in the San Francisco Bay region—San Francisco, Oakland and the surrounding towns. The population of this region is about one and one-quarter million.

The information was obtained by communicating with the various ophthalmologists in the San Francisco Bay region, who supplied the necessary data.

No attempt will be made to describe the appearance of the cataracts seen in these patients, as this has been well done in the reported cases.

SUMMARY OF THE DATA OBTAINED

Table 1 summarizes the information obtained There were thirty-two cases. Only such cases were included in which there were definite clinical data that the cataracts have followed the use of dinitrophenol. All the patients were females. Cogan and Cogan's [4] first case was the only male patient so far reported.

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* From the division of ophthalmology, Stanford University Medical School.

The average age was forty-five years. The youngest was thirty years old and the oldest sixty-seven. Cogan and Cogan's[4] second patient, and Allen and Benson's[7] patient were each twenty-five years old.

The average length of time in which dinitrophenol was taken by twenty-nine of the patients was eleven months. A number of the patients did not use the drug continuously, but stopped for some months during the treatment. In calculating the time dinitrophenol was taken, only the actual number of months in which it was taken is included. In Case 1 the patient took the drug during a period of nineteen months, during which time she stopped for eight months.

The length of time dinitrophenol is taken apparently is not a factor in the production of the cataracts. The shortest time dinitrophenol was taken was three months, and the longest twenty-four months.

In view of the insufficient data available, the amount of dinitrophenol taken and the dosages are not included in this report.

The time of the appearance of the cataracts after the beginning of dinitrophenol treatment is based either on the time when the diminution of vision was first observed by the patient or when the cataracts were first seen by ophthalmologists. Some of these patients had no visual disturbances when the cataracts were first observed, and the cataracts were found in routine eye examinations of patients receiving dinitrophenol.

The average time cataracts were formed after the beginning of dinitrophenol treatment was, for twenty-seven patients, fifteen months.

Table 1.—*Summary of Thirty-two Cases of Cataracts Following the Use of Dinitrophenol Observed in the San Francisco Bay Region*

Case	Patient	Age	Length of Time (Months) Dinitrophenol Was Taken	Formation of Cataract After the Beginning of the Dinitrophenol Treatment (Months)	Formation of Cataract After the Stoppage of the Dinitrophenol (Months)
1	M. L.	37	11	15	4
2	M. M.	65	17	19	..
3	E. A.	50	19	18	..
4	L. L.	37	9	16	7
5	J. P.	30	3	12	9
6	R. R.	44	7	11	4
7	R. H.	45	5	17	12
8	M. B.	56	7	18	11
9	G. H.	36	5	12	7
10	T. W.	38	6	6	..
11	D. B.	38	6	9	3
12	G. B.	43	14	14	..
13	D. R.	63	18	16	..
14	H. H.	44	6	11	5
15	E. G.	39	24	24	..
16	L. B.	41	4	14	10
17	A. T.	43	10	10	..
18	C. H.	53	18	23	5
19	C. W.	42	19	26	7
20	V. O.	45	7	13	6
21	V. M.	54	12	13	1
22	F. W.	60	18	18	..
23	R. B.	32	6	14	8
24	E. E.	33	12	6	..
25	M. P.	35	8	18	10
26	A. S.	36	4	12	8
27	E. B.	37	16	24	8
28	M. L.	46	12	....	..
29	E. R.	32	13	....	..
30	M. L.	54	....	....	..
31	D. T.	64	....	....	..
32	I. R.	67	....	....	..
Average		45	11 (29 patients)	15 (27 patients)	7 (18 patients)

TABLE 2.—*Average Age of Patients With Cataracts Following the Use of Dinitrophenol Observed in the San Francisco Bay Region.*

Ages 30 to 39	13 patients
Ages 40 to 49	9 patients
Ages 50 to 59	5 patients
Ages 60 to 67	5 patients
Total	32 patients
Average age of the patients	45 years

In eighteen of the twenty-seven patients, cataracts did not form till after the drug was discontinued. The average time cataracts formed after stopping the drug was seven months. The shortest time was one month and the longest was twelve months. Only a few of the patients continued to use the drug after there was a loss in the acuity of vision. In Cases 2 and 13, dinitrophenol was used for two months after a loss of vision was noticed. In Case 24, the patient continued to use the drug for six months after she noticed disturbance of vision, claiming that only by the use of dinitrophenol was she able to keep her weight down so that she may be employed in her occupation.

Table 2 gives the number of patients in age groups. Between the ages of thirty and thirty-nine there were thirteen patients; between forty and forty-nine, nine patients; between fifty and fifty-nine, five patients; between sixty and sixty-seven, five patients. In the last age group, the cataracts were differentiated from senile cataracts by their characteristic appearance, their rapidity of growth and maturity, and the fact that these patients were under dinitrophenol treatment. Some of these patients had been seen by ophthalmologists before they began dinitrophenol treatment, and at that time they were found to have no lenticular opacities.

The *Journal of the American Medical Association* [8] has already warned the medical profession as to the dangers of the use of dinitrophenol. Furthermore, the Council on Pharmacy and Chemistry has rejected dinitrophenol for inclusion in New and Nonofficial Remedies.[9]

Finding thirty-two cases of cataracts, following the use of dinitrophenol, should be sufficient warning to anyone to discontinue the use of this drug until more information is available as to its action on the lens.

SUMMARY

1. Thirty-two female patients with cataracts, following the use of dinitrophenol, are here reported.

2. The average age for the thirty-two patients was forty-five years.

3. The average length of time dinitrophenol was taken by twenty-nine of the patients was eleven months.

4. The average length of time cataracts formed after the beginning of dinitrophenol treatment in twenty-seven of the patients was fifteen months.

5. The average length of time cataracts formed after the stoppage of dinitrophenol in eighteen of the patients was seven months.

6. The use of dinitrophenol should be discontinued until more information is available as to its action on the lens.

490 Post Street.

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DISCUSSION

WARREN D. HORNER, M. D. (384 Post Street, San Francisco).—Doctor Rodin's excellent analysis covers the largest series of cataracts of this type collected thus far. The previous reports have not included more than three cases from any one observer, and they have been widely distributed throughout the country.

Since much of the early pharmacologic and clinical investigation was carried out at Stanford University Medical School, it is not remarkable that the suspected remote effects of dinitrophenol would be more numerous in this locality. From this clinic more than 1,200,000 capsules of 0.1 gram each were supplied to physicians and patients during the year from July, 1934 to July, 1935. It is estimated that 4,500 patients in California alone were treated during this period, and that 100,000 persons in this country have used the drug since its introduction as a remedy for obesity. In addition to dosage controlled by physicians, about twenty commercial concerns marketed dinitrophenol or mixtures containing it.

Considering the number of people who have taken dinitrophenol under conditions varying from strict supervision to no supervision at all, it is not remarkable that such a potent drug should produce some untoward effects. The ratio of lens changes to the total number of patients taking dinitrophenol is small, probably less than one per cent and perhaps nearer 0.1 per cent. The number of cataracts is not known, but may be estimated at between fifty and one hundred. If one hundred thousand persons took the drug in the first fifteen months, as has been estimated, the incidence of cataract would be less than 0.1 per cent.

It is remarkable that in all of the cases of dinitrophenol poisoning occurring in munition workers in France during the war, and in thousands treated for obesity since, no case of cataract has been reported. One French writer, Dally, "suspects the toxic action of an impurity in the dinitrophenol, very probably dinitronaphthol."

The lens changes following dinitrophenol appear to be due to some deleterious effect on the lens epithelium. The opacities are first noted just beneath the anterior and posterior capsules. When once begun, they proceed steadily without arrestment until the whole lens is opaque. Local treatment, such as hyperemia by hot applications, dionin and subconjunctival injections, or various general measures as diet, forced fluids, calcium salts, or concentrated vitamin C (ascorbic acid) have failed to influence progress.

No damage to any ocular structure except the lens has been reported thus far.

Extraction of such cataractous lenses is done with no more difficulty than other soft cataracts, and visual results following operation have been excellent.

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Hans Barkan, M. D. (Stanford University Hospital, San Francisco).—Of the thirty-two cases mentioned here by Doctor Rodin, I have seen a number, some of them in private practice and some of them in the Stanford University eye clinic. As he says, the amount or the length of time of use, or the age, or the amount of weight lost, seem to make little if any difference as to whether the patients develop lenticular changes. It is an unhappy circumstance that a drug so carefully worked up, and so carefully checked by the very best scientific men and proceedings, should have proved to be one which certain individuals at least cannot take without this acute disturbance of lens metabolism. There must be an individual idiosyncrasy to it. Certainly, of the large number of patients taking it, few developed cataracts, but in such fashion and so typically that there can be no doubt clinically that just those would not have had cataracts at this particular time if they had not been taking the drug. Doctor Rodin deserves great credit in having carefully collected and proved up the data respecting these cases.

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Harold F. Whalman, M. D. (727 West Seventh Street, Los Angeles).—The tabulation of cases by Doctor Rodin conforms in many respects to a similar grouping of nineteen cases which I have had the opportunity to analyze. Some very interesting and significant facts are thereby revealed, and I would like to urge that physicians who have the opportunity of seeing cases of dinitrophenol cataract send brief notes regarding such to those who are interested in making the tabulations.

First of all, the tables indicate that the individuals in this series did not show what would ordinarily be considered an idiosyncrasy for the drug, but rather a very hearty tolerance for dinitrophenol, as evidenced by the fact that the average length of time of ingestion of the drug was eleven months. With the exception of one case, all have been women and relatively obese. In my own series, where weight loss has been included in the study, all showed considerable reduction in weight, varying from fifteen to seventy-six pounds, averaging about thirty-five pounds over a period of time.

As Doctor Rodin has indicated, there seems to be no relation between the amount of drug taken and the formation of cataracts, nor does the discontinuance of the drug before visual symptoms develop alleviate one from the possibilities of later visual disturbance, as evidenced by the fact that cataracts have formed as late as twelve months after discontinuing the dinitrophenol. This is very disconcerting, to say the least, and would seem to indicate that some permanent damage occurs to the structure of the lens, likely an effect on the capsule of the lens affecting its permeability. The subsequent changes then appear to be one of hydrolysis, as the lens becomes gradually swollen and its fibers disintegrated.

Doctor Rodin did not indicate the amount of drug taken by these patients, but in my own series the daily dose did not exceed that recommended by Stockton and his coworkers, an average of from 100 to 500 milligrams per day.

Another point mentioned by Doctor Rodin, but which is not indicated in his tables, is that the rate of development of these cataracts is extremely rapid in comparison with the cataracts we are accustomed to see. Complete maturity may ensue within a week after the onset of visual symptoms, or it may take many months for the complete development of the cataract. The average, however, is about one month. In this respect they behave very much like traumatic cataracts, where the epithelium of the lens is damaged by a penetrating agent followed by immediate opacification of the lens substance as a result of injury to the capsule, when rapid swelling of the lens ensues. Concurrent with this speedy development of lens opacity and the swelling of the lens, there is an increase in the intra-ocular tension of the eye due to blocking of the iris angle. This may vary from a few points above normal to acute glaucoma.

General practitioners should be on the alert for visual change in patients taking this drug. The earliest signs are those of an increased index of refraction, which can be detected by the ophthalmologist in a change of refraction in the patient's eyes.

To date no form of medical treatment, either general or local, has resulted in arrest of the process once it has started. These cataracts are, however, amenable to surgical treatment, and the visual results in most cases have been reported as good. With the exception of some instances communicated to me by Doctors Hosford and Hicks, the vitreous body has been unaltered in the early stages of cataract development, when such body can be seen with the slit lamp, and after cataract extraction.

I wish to congratulate Doctor Rodin on having obtained a sufficient group of cases from his colleagues to demonstrate certain constant features observed in these patients.

MEDICINE AND SURGERY IN THE FLEET[*]

By Lucius W. Johnson, M.D.[†]
U. S. S. Relief, United States Navy

When your representative asked me to talk to you tonight, he suggested the subject, "Medicine and Surgery in the Fleet," and I have not been able to improve on that suggestion.

WHAT IS THE FLEET?

As a preliminary step in any discussion, it is good logic to agree on the meaning of the terms that are to be used; so, in this case, I think we should get it straight, just what the fleet is. You may think of it as that aggregation of 160 ships and 45,000 men that recently returned from the Pacific maneuvers. But there is a broader conception of it, expressed in the saying that "the fleet is the Navy and the Navy is the fleet." It implies that everyone in the Navy is a part of the fleet, whether his job for the moment be on a ship, at a desk in Washington, or in one of our distant island possessions. Each one plays an essential part in the preparations which make it possible both to move and maintain the fleet in readiness to fight wherever it may be needed.

This broad definition of the fleet gives me great latitude in what I may say. But it also exposes me to certain hazards. On the one hand, is the peril of wearying you with excessive praise of my own outfit. On the other hand, is the danger of putting you to sleep with a dry statistical summary of accomplishments. I will try to steer a careful course, avoiding both of these extremes.

THE SHIP SURGEON A CENTURY AGO

To get a proper slant on this job of being a doctor in the Navy, let us take a brief glance back to the times when the pay of doctors there was small, their equipment meager, and their prestige little greater than that of a guinea-pig in a modern laboratory. An intimate picture of this is contained in Smollett's *Roderick Random,* a vivid delineation based on his own experiences as a surgeon's mate in the British Navy with Admiral Vernon's naval expedition to Carthagena in 1741. No doubt most of you have read it. In the early days of the United States Navy, the doctor was hired for service on the individual ship and was selected by the captain. His pay was about $25 a month. Later, by many years, the pay was raised to $75 a month; the ship's doctor was recognized as an officer, and he was allowed to wear a uniform.

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[*] Read before the Hollywood Academy of Medicine on September 19, 1935.

[†] Editor's Note.—The author of this article, Lucius W. Johnson, M.D., is a Captain in the Medical Corps, United States Navy, and Senior Medical Officer on the U. S. S. *Relief.*

PRESENT-DAY MEDICAL DEPARTMENT ORGANIZED IN 1871

In 1871 the Medical Department of the Navy was organized, with the Bureau of Medicine and Surgery in charge. Five grades, with relative rank, were established. We now receive the same pay, and are promoted step by step with our brother officers in other branches.

These improvements in the material welfare of the doctor in the Navy have accompanied great advances in sanitation, and the practice of medicine and surgery on board ship, which have paralleled similar progress on shore. Naval communities are no more tolerant of mediocre treatment than are other people. They demand the best and they receive it.

MORALE OF A MILITARY ORGANIZATION DEPENDENT ON CARE OF THE SICK AND WOUNDED

"Of the diverse gifts which have been bestowed upon mankind, the healing art is one of the most necessary and most conducive to the public good." Many of you will recognize these words of Robert Burton, and they are no less true today than they were three hundred years ago when he wrote them. Especially are they true of the modern ship of the Navy. The Byzantine Emperor, Leo, wrote in his treatise on military science, "Give all the care you possibly can to your wounded, for if you neglect them you will make your soldiers timid and cowardly before a battle, and not only that, but your personnel, whom you might preserve and retain by proper consideration for their health and welfare, will be otherwise lost to you through your own negligence." In those early days it was recognized, as it is today, that care of the sick and wounded is essential if the morale of a military organization is to be maintained, and those who administer our Navy are doing all they can to provide adequately for the men of the service. The mission of the Medical Corps, as stated by Gatewood, is to keep as many men at as many guns as many days as possible.

A NAVAL MEDICAL OFFICER'S CAREER

The career of a naval medical officer may be divided into three parts: that spent on ships; that spent on foreign shore duty; and that spent on shore within the United States. The first year after entrance into the medical corps is the officer's interne year in one of our large naval hospitals, which are approved for interne instruction by the American College of Surgeons and the American Medical Association. After that he will have two or three years at sea on a ship. This will be followed by about three years of hospital duty in the United States, and he will usually then go for two years of shore duty in the Philippines, Guam, China, Panama, or some other outlying post. Specialization is encouraged; and if he shows any desire to enter a special branch, he will be sent to the Naval Medical School in Washington or to some of our large university medical schools for postgraduate instruction.

A certain practitioner, questioned as to his specialty, replied that he limited his practice to acute and chronic diseases and injuries of men, women and children. The medical officer on board a Navy ship covers a field almost as broad. He must be an all-round specialist, for he is quite likely to be put in a position where he must, alone, diagnose and treat all sorts of diseases and injuries. The unfortunate plight of a friend of mine illustrates this point. About twenty years ago he was the medical officer on a ship which was surveying the south coast of Cuba. One of the crew was taken sick with what the doctor suspected to be acute appendicitis. He told the captain that immediate operation was required, but that he did not feel competent to do it. They decided to stop work and proceed at fulll speed to the nearest hospital, which was at Panama, two days away. The man was delivered to the hospital and the ship returned to her station with a loss of five days, which was important because the hurricane season was at hand, when the work must stop for the year. No sooner had they resumed work than another man came down with appendicitis. Once more the work was halted, and the ship headed for Panama; but this time the captain sent a radio to Washington, demanding a more adequate medical officer and the doctor resigned.

ANALOGY TO SMALL-TOWN PRACTICE

The work of a doctor on a ship may be compared to that of one practicing in a small town; but all his patients are men, and they are mostly between twenty and thirty years of age. The crowded conditions on board ship favor the spread of contagious diseases, especially those carried by the secretions of the nose and throat. The intricate machinery among which they work and live carries its own hazards of injury. The powerful explosives which they handle and the tremendous forces which are harnessed, sometimes inadequately, on a modern ship of war add their dangers to those which usually threaten men who follow the sea. Add to these the frequent and extreme changes in climate to which the crews of the ships are exposed, and you will realize that the doctor must be prepared to handle any problem in medicine, surgery, sanitation, or of the specialties.

HOW SEA DUTY AFFECTS THE NAVAL SURGEON

The effect of sea duty on the doctor himself is to bring out the fundamental characteristics of the man. One can get by with so little work that some become like the electric button that does no work unless it is pushed. Others achieve almost completely suspended animation, like the fly embedded in amber. It really takes a lot of self-control and determination for a doctor to complete two or three years on board ship without deterioration, but most doctors realize this fact and strive earnestly against the enticement of indolence. A former surgeon-general of the Navy, W. P. C. Barton, wrote that: "The unsettled and wandering life on board ship not only deters the gratification of professional ambition, but absolutely generates an inanition of mind very inimical to solid improvement of any kind." Yet the majority of our doctors take advantage of their cruises at sea to keep abreast of the medical literature, visit clinics and hospitals, and otherwise avail themselves of the professional facilities offered by the various ports which they visit. While I was a member of the Board, in Washington, which examines naval medical officers for promotion, I observed that many of those who were at sea passed with very high marks and showed evidence of real professional advancement while on board ship.

AUTHOR'S OWN EXPERIENCE

Twenty-seven years ago, when I considered entering the Medical Corps of the Navy, Dr. Henry W. Cattell, with whom I had the good fortune to be associated at that time, told me, "If you do only a little bit more work than you are required to do, you will win distinction in the Navy." The level of professional activity among us is now infinitely higher than it was in those days, but his statement is still true and, if you will give it careful consideration, you will find that it applies in your sphere of activity as surely as it does in mine.

HOW DIFFERENT PORTS AFFECT THE SICK LIST

Each port visited by the fleet has its individual effect on the sick list of the ships. As an illustration of this point, consider the contrast between Honolulu, which the fleet visited this spring, and a certain port in Central America, where it stayed for a time last year. In Honolulu was a kindly, friendly people, speaking our own language, who delighted to entertain our men with luaus and dances. The principal pleasure for all of us was found in the surf and sunshine of the beaches. At the other port was an alien and unsympathetic people, who had no interest in our men except in the profit they could make. They offered as amusements prostitution, drinking and gambling. It requires little imagination to understand how diversely these two visits were reflected in the health of our men and in the number of patients sent to the hospital ship.

Many years ago Dazille wrote at length on the thesis that an understanding of the condition of a country can be reached quite accurately through a knowledge of the diseases of its people. (Observations Générales sur les Maladies des Climats Chauds, etc., Paris, 1785.) It is a parallel truth that one can gauge with precision the condition of the fleet, or of an individual ship, by observing its sick list. The discipline and the contentment of its men, and the efficiency and wisdom of the medical officers of a ship are all mirrored in its sick list. We who serve on the hospital ship are ideally placed to appreciate this fact and to estimate the conditions on the various ships of the fleet.

U. S. S. "RELIEF": HOSPITAL SHIP OF THE FLEET

The U. S. S. *Relief* serves as the hospital ship of the fleet, and she is a complete floating hospital with a normal capacity of 370 patients. There have been hospital ships attached to the great navies ever since the days of the Invincible Armada in 1588, and probably even before that; but the *Relief* is the first vessel to be built from the keel up for this particular purpose. She was placed in commission December 28, 1920, and has since been in almost constant attendance on the fleet. Her function is to cure the sick and to return them to their ships as quickly as possible; also to provide treatment in all the special branches, laboratory facilities, and other needs for medical aid. Her reputation for the excellence of the work performed by her staff is most enviable. We ourselves did not realize how far this reputation had spread until recently, when—believe it or not—an injured seal flopped up on the gangway. That was most gratifying, for, of course, a seal would never stoop to flattery. So we sewed up the lacerations, applied a dressing and returned the seal to the water. I am told that it came back for several days, at 8:45 a. m. sharp, for more dressings.

But I must forego the privilege of setting forth at greater length the excellence of the hospital ship, because my particular job is that of senior medical officer of the *Relief*, and I must not tire you with too much praise of my own child.

AN EXAMPLE OF EMERGENCY SERVICE

Before leaving this subject, I wish to describe one incident that illustrates how the hospital ship works. On June 4, we were en route to San Pedro from Honolulu. The various units of the fleet were engaged in a strategical problem, and the *Relief* was approximately in the center of the area of activity. The heavy cruiser *Portland* was about seventy miles to the north of us when one of her men suffered a perforation of a peptic ulcer. She immediately notified the *Relief* by radio, and the two ships steamed toward each other at full speed. By the time they met, the operating room was ready. The patient was transferred and operated on at once, less than five hours after his trouble began. You all know how important the time element is in this ailment, and will realize how large a part this early operation played in the man's rapid recovery.

ONE-SIDEDNESS OF NAVAL PRACTICE

Working with men patients only, as many of us do in the Navy, does tend to make us somewhat one-sided in our professional development. A good friend of mine recently reminded me of a story on myself which illustrates this point. After I had been doing surgery for some years, an officer persuaded me to operate on his wife, which I did with considerable diffidence, since my work had been almost entirely with men. As I opened the peritoneum a perfectly normal ovary popped out. I was utterly dismayed and said, "What in the devil is that thing?" My assistant, who always earned a perfect mark in diplomacy, said, "I thought at first it was an ovary, but maybe it isn't."

FOREIGN SHORE DUTY

Foreign short duty may be in the Philippines, Guam, China, Cuba, or Samoa. Until recently we had medical officers also in Haiti, Dominican Republic, Nicaragua, and the Virgin Islands. Most of us regard these tours of duty as delightful interludes. If one stays too long in one place he comes to the time when he has solved most of the problems, knows most of the answers and understands most of the people that he must do business with. He is liable to settle into a rut. In the Navy, when we reach this stage they pull us up by the roots and transplant us to a new field where there are new problems to solve, new personalities to figure out and new worlds to conquer. It is wonderfully stimulating to tackle a fresh job, and I believe it helps to keep us young and enthusiastic.

CARE OF NATIVE POPULATIONS

In these foreign stations we have not only the usual Navy work, but also the care of native populations, and great problems of sanitation and public health administration. Tropical medicine offers most interesting fields of inquiry in which some of our most successful battles with disease have been fought. The countries which we have occupied have always profited greatly in public health, sanitation, hospital facilities and control of their special diseases. The work of Stitt in the Philippines, of McLean, Butler, and Melhorn in Haiti, and Paul Wilson in Panama, are achievements to which we point with legitimate pride. In Haiti, for instance, when we occupied it in 1915, we encountered most primitive sanitary conditions. There was no sewerage system in the cities, and refuse was simply thrown into the streets to rot; there was no public water supply except shallow wells and polluted streams: nor was there mosquito control, or vaccination or other action to prevent disease. The practice of medicine was most primitive and, outside of a few favored ones in the large cities, few of the inhabitants had medical advantages much superior to those medico-religious rites which they brought with them from Africa three hundred years ago. When I left the country, in 1931, there were modern hospitals in the eleven largest towns. Every district of the country had its organized sanitary and clinic service. During that year there were over 10,000 admissions to hospitals, and 1,300,000 visits to dispensaries and rural clinics. Every considerable town had its water supply, its refuse disposal service, its mosquito control work, its dispensary and its consultation service, whereby specialists could be quickly brought by plane, automobile, or mule-back, for any serious medical, surgical or sanitary emergency. There was a well-equipped medical and dental school, with teachers trained in the best schools of Canada, France, and the United States. Some of the most satisfying experiences of my many years of medical work came to me while on those mule-back clinics in the remote mountain districts of Haiti. Ever since April, 1903, when I commenced my interneship in old Blockley Hospital in Philadelphia, I have been continuously associated with the care of the sick, wounded and needy, but in no other place and at no other time have I had so truly the feeling that I was a real benefactor to those under my care as during those three years in Haiti.

FUNCTION OF THE NAVY IN MAJOR DISASTERS

The Navy is frequently called upon to aid in relief work following disasters of great magnitude. Such calls have been eagerly accepted as opportunities to demonstrate the value of the training and equipment of our organization. Medical officers have played an important part in this work, and their success has often been the subject of favorable comment. Conspicuous examples of this sort of work have been the Messina earthquake and the Armenian massacres in 1909; the earthquake in Guatemala City in 1917; the earthquake and tidal wave in Chili in 1923, and the Japanese earthquake in the same year; the hurricane in Santo Domingo City, D. R., in 1930. Excellent work was done by two medical officers after the Nicaraguan earthquake of 1931. The assistance given by the Navy, and particularly the part played by the medical department, after the Long Beach earthquake is probably still fresh in your minds. In all these disasters we have enjoyed the most harmonious coöperation with the American Red Cross, and we are happy to acknowledge the value of the lessons we have learned through association with the disaster experts of that admirable organization.

UNITED STATES MARINES

Wherever the United States Marines go they are accompanied by and served by members of the Medical Corps of the Navy. Our doctors have participated in all their glorious exploits, taking care of their sick and wounded in Pekin, Samar, Coyotepe, Belleau Wood, and many other fields of action. As soon as the Marines have landed and have the situation well in hand, the Navy medico goes to work to improve sanitation, to give medical aid to the populace, and to supply to the natives the benefits of modern medical knowledge. The Marines have freely acknowledged that the good-will and confidence of the people earned by the Navy doctors have made much easier the task of administering the government of occupied countries.

MEDICAL CORPS OF THE NAVY AIDS IN LAND SANITATION

Yaws, gangosa, beriberi, syphilis, malaria, intestinal parasites and other tropical killers, have been brought under control by naval medical officers in many occupied lands. Our critics are frank in saying that the very success of this public-health work brings in its train the problems of over-population and inadequate food supply. They cite Puerto Rico and Guam as examples of this. But public opinion has yet to reach the stage where it will approve restriction of public-health work because it saves too many lives.

In all this work in our island possessions and among alien peoples, we try always to maintain the attitude of the bantam rooster who was the idol of several hens. One day he found a large goose egg in the barn yard and was filled with admiration of its size. He rolled it into the henhouse and said to the assembled hens: "Now I don't want to belittle and I don't want to criticize. I just want to show you what others are accomplishing with the same equipment."

SHORE DUTY IN THE UNITED STATES

Duty on shore in the United States is usually at hospitals, dispensaries, training stations, navy yards, or recruiting stations. The purpose of all these is to serve the fleet, to maintain its men in the best of health. There are eleven hospitals, the largest of which is that at San Diego, with about 1,200 beds. In a recent year (1933), there were 51,606 admissions to the sick list for all causes, with a total of 1,516,658 treatment days in naval hospitals. Every effort is made to keep these institutions abreast of the finest that can be found in modern hospitals, both in equipment and in training of the personnel. I do not want to spend too much time in detailed description of this aspect of our work, because it parallels too closely your own daily rounds.

CONTACTS WITH PRACTITIONERS IN CIVIL PRACTICE NEEDED AND APPRECIATED

It is one of the unfortunate features of our work that we are pretty completely insulated from contact with our professional brothers in civil life. We miss those stimulating, friendly contacts which prevent your work from ever becoming a mere routine. But of late years the increasing extent to which we endeavor to provide professional service to the families of service personnel has brought pleasant relations in many localities. In the San Pedro-Long Beach area, for instance, the Harbor Branch of the Los Angeles County Medical Society has for several years bestowed the gracious compliment upon our corps of electing one of the medical officers attached to the naval dispensary as its vice-president.

In one year this dispensary handled 600 obstetrical cases, 350 major operations, and 60,000 office consultations. A great part of this work was previously done by civilian physicians, with little or no compensation, and they express themselves as being happy in their relief from this burden. These services for the Navy families are also of great value to the fighting man because, while absent from home, he knows that in case of illness his dependents are assured of medical care and hospitalization if necessary. To illustrate, a story is told of an old Navy captain who refused leave to a young officer who desired to visit his home and be present at the birth of his first offspring. The captain's reason for refusing was that, while it was necessary for the young officer to be present at the laying of the keel, the doctor would attend to the launching. So the sailor man of today can lay the keel during his shore leave and proceed to sea confident that the Navy doctor will take care of the launching.

ORGANIZATION OF THE MEDICAL DEPARTMENT OF THE UNITED STATES NAVY

It may interest you to know something of the organization of the Medical Department of the Navy. The Surgeon-General is chief of the Bureau of Medicine and Surgery, which directs the activities of this department. The incumbent is Rear-Admiral Percival S. Rossiter, M. C., United States Navy, whose strong and intelligent administration has greatly added to the prestige of the Medical Corps. At present there are approximately 870 medical officers, 200 dental officers, 130 pharmacists, 455 nurses, and 4,000 men of the Hospital Corps, under the direction of the Bureau of Medicine and Surgery. Every effort is made to secure the best available men. For the Medical Corps they are sought in the graduating classes of Class A medical schools. They must come well recommended from their own schools, and we seek men who have also been active in other branches than the purely scholastic. A careful investigation of all sides of the man's life is made. This results in weeding out many candidates, and the very rigid physical examination eliminates many others. Then comes a very thorough written examination in various professional subjects, which is competitive, all candidates having the same questions at the same time, under the observation of naval medical officers. The examination papers and all the data secured from these various sources are then forwarded to Washington, where the Board grades all the candidates, and commissions are offered to those at the top of the list. During the four years that I was on this board in Washington, we had always to choose from at least five times as many candidates as could be appointed. Those commissioned are ordered to various naval hospitals for their interne year. At the end of that period, if the doctor does not like the Navy, or the Navy does not like him, he may resign with no hard feeling on either side, although very few do so. After a cruise of three years at sea, the young doctor usually returns to one of the hospitals for duty, and if he has any inclination toward a specialty he is tried out and encouraged to develop his ability. The Bureau desires to assist those who are anxious to develop themselves in a chosen field and, in four years, has given special courses in various civilian institutions to 225 medical officers, 20 dental officers, 9 pharmacists, 26 nurses, and 19 hospital corps men. During the same time 60 medical officers, 30 dentists, and 150 hospital corps men took courses of instruction at the Naval Medical School in Washington, D. C.

PROMOTIONS IN THE MEDICAL CORPS

Promotion in the Medical Corps of the Navy is entirely by selection. When the doctor enters the service he is assigned a running mate in the line of the Navy; and, as the line officer becomes eligible for promotion to the various grades, the medical officer also becomes eligible for promotion in his corps. Each year a board of senior officers of the Medical Corps considers those who have become eligible and selects the ones who are to be promoted. This plan was started, for the higher grades, in 1926, and has worked so well there that it has recently been extended to include all grades. It makes our job a highly competitive one and keeps every man on his toes in the effort to excel and to win promotion.

IN CONCLUSION

There are many other aspects of our life and our work that I would like to tell you about, but I have already taken too much of your time. Perhaps I have helped you to understand why we who are in the Navy love it, or perhaps you may have found it, like the sailor's parrot, far-fetched and full of nonsense. In any case, it has been a delightful experience for me to spend this evening with you.

U. S. S. *Relief,* San Pedro, California.

URINARY EXTRAVASATION FOLLOWING URETHRAL STRICTURE*

By Carl F. Rusche, M.D.
and
Samuel K. Bacon, M.D.
Hollywood

Discussion *by Nathan G. Hale, M. D., Sacramento; Henry A. R. Kreutzmann, M. D., San Francisco; Louis Clive Jacobs, M. D., San Francisco.*

A GENERAL survey of medical literature shows a relative infrequency of any comprehensive treatise on the subject of urinary extravasation. This paucity of material may be due to the assumed fact that the present records are sufficiently broad of view to cover the subject and remain as a criterion of excellence; to the fact that the comparative magnitude of this disease has not been fully and vividly appreciated; or, finally, to the fact that only a limited number of urologists have been privileged to attend large clinics, and observe and estimate the frequency and importance of the condition.

PURPOSE OF THE AUTHORS' PAPER

Feeling this gap in medical writings, we are taking the opportunity of offering a personal contribution, having for its object the successful conduct of an extravasation of urine occurring external to, and limited by the urogenital diaphragm. This is not because we differ with other writers in the main, but rather because we absolutely agree with them in general and only wish to indicate our variations in the detailed management of this urgent condition.

Several of the old textbooks are entertaining, although not particularly enlightening in regard to urinary extravasation. The descriptions of this disease include such symptoms as violent straining, sudden sensation of giving way, followed by urine gushing into the surrounding connective tissue. These dramatic accounts had never particularly formed a part of our impression of the observed sequence of events; however, very recently we have been fortunate to see a young adult with the urinary bladder distended to the umbilicus, unable to void, yet after straining most violently, empty the bladder and immediately distend the scrotum, as one would inflate a football.

Before citing in detail the case history we wish to report, we would like to make some general observations on the subject of urinary extravasation.

SYNONYMS OF THE TERM "EXTRAVASATION OF URINE"

In the study of this subject there seems to be a great confusion of terms. We do not question the correctness of the definitions accepted by others, but, since a generally accepted definition is the first requisite for proper scientific comprehension, we believe it best to name the terms associated with this disease so that there will be a denominator of common definition. The term "extravasation of urine," as used in this paper, shall be essentially synonymous with such expressions as:

1. "Urethral or periurethral gangrene, with or without infiltration";
2. "Diffuse gangrenous cellulitis of urethral origin";
3. "Periurethral cellulitis";
4. "Diffuse phlegmonous inflammation";
5. "Periurethral phlegmon";
6. "Periurethral abscess, with urinary infiltration."

As our title discloses, we do not intend to deal with every aspect of urinary infiltration; we specifically limit ourselves to emphasizing that, in the majority of cases, urethral *stricture* is the significant causative factor of this disease; and we, therefore, exclude a group of important entities due to the escape of urine into tissues above the triangular ligament. We realize the unusual fact that an extravasation of urine may be present even though the urethral caliber be within normal limits, and we accept the theory of urethral infection.

The facial planes of the perineum and genitals control the advancement of urine escaping from the normal channel. The relationship between a urethral perforation and these barriers determines the course of extravasation.

The diagnosis of urinary extravasation can be made by the urologist as rapidly as that of any other entity in this specialty. The symptoms and findings require no great process of elimination.

The clinical history and management of an average patient with this condition can be described most concisely by following the methods of Martin and Soloway, and we deviate only where our personal experience has shown some variation.

A TYPICAL STRICTURE CASE

In the typical stricture case, a patient possibly had a previous gonorrheal infection treated with a strong solution or remained untreated, or neg-

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* Read before the Urology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

lected to subject himself to urethral dilatation for stricture. Symptoms of frequency, dysuria, loss of force, and narrowing of the urinary stream, have been present for several years. Finally, exposure to cold, alcohol, sexual excess, or unusual emotional excitement precipitates acute urinary retention. After a characteristic delay for the relief of this situation, a physician, usually without adequate urologic equipment, is consulted. Attempts to catheterize the patient with rubber or metal catheters, and with perhaps a metal sound thrown in for good measure, may complicate the stricture by adding hemorrhage, false passage, and infection. Occasionally the urine is withdrawn by suprapubic aspiration through a needle or trocar, and the patient is instructed to go to a urologist, to a hospital, or to his home and take hot sitz baths.

THE PICTURE WHEN COMPLICATIONS ARISE

Remembering the painful ordeal of previous urethral instrumentation, and temporarily benefited by the emptying of his bladder, the patient disregards the instructions to go to a urologist and have his stricture properly treated. A period passes and a repetition of urinary retention occurs. Now it presents a different picture. The scrotum is enlarging; the skin of the penis is swelling; for hours, or for a day or two, the patient has withheld fluids; he can no longer procrastinate. At this time an ambulance usually must call at his residence and deliver him to a hospital for immediate urologic care.

The resident physician and interne have to deal with a serious emergency. The patient is dehydrated and emaciated. Fetid breath, dry red tongue, fever, tachycardia, rapid respiration, possibly pulmonary râles, usually distended bladder, swollen, painful perineum, distended, glistening reddish-brown scrotum, perhaps with the epithelium separating like a broken blister, foul odor about the genitals, penile edema causing the meatus to be hidden, and bilateral subcutaneous infiltration suprapubically, illustrate the clinical aspect of an advanced urinary extravasation.

There is only one way of dealing with a patient like this, and that is to resort to immediate radical surgery. Unfortunately, not all physicians and urologists adopt this heroic treatment. Only a few months ago, one of our professional acquaintances stated, in a telephone conversation, that he had just completed the procedure of attempting to aspirate an extravasated patient. He admitted that, although he had been very thorough in trying the needle in many areas, fluid did not return, the scrotum remained distended, and the sufferer was not relieved.

To temporize, to delay, or to falter upon an occasion characterized by urinary infiltration is almost a display of unjustifiable ignorance. Prompt and wide use of the knife is the only procedure that will deal adequately with the exigencies of the case.

Some three years ago we were privileged to be with Dr. Robert V. Day when he was observing an extravasated patient the morning following surgery. He turned to the resident urologist, and asked: "Doctor, do you think you cut enough?"—although this doctor had already incised through a great area of tissue. The surgeon glanced once more at the bare testicles and gaping wounds; then with apologies, replied that he thought he "had made a sufficient number of incisions." Doctor Day waited courteously but impatiently through the answer; then retorted with the statement, which we consider axiomatic, "When you arrive at that conclusion, you had better close your eyes and slice some more."

TREATMENT OF URINARY EXTRAVASATION

The treatment of urinary extravasation calls for three courses of action:

1. Diversion of the urinary stream;
2. Multiple incisions of all infiltrated areas;
3. Urethral dilatation.

To those surgeons who have already incorporated these courses in their management of such cases, we extend our compliments. Those who remove the prostate suprapubically in some cases and through the perineum in others, will understand our personal variations, but will to a greater or lesser degree endorse the following type of surgery. Our routine must not be considered the only correct procedure, and we desire to appreciate the records of those surgeons who advocate perineal cystostomy. In fact, we ourselves occasionally have recourse to this operation.

AUTHORS' CHOICE IN PROCEDURES

The following order of procedure (arranged in sequence) essentially summarizes our own choice in the management of urinary extravasation cases:

1. Intravenous saline;
2. Urethral calibration;
3. Spinal anesthesia;
4. Suprapubic cystostomy.
5. Multiple incisions of extravasated areas;
6. Postoperative potassium permanganate continuously;
7. Hot sitz baths early;
8. Urethral dilatations;
9. Indwelling urethral catheter;
10. Removal of suprapubic catheter;
11. Periodic urethral dilatation.

IMPORTANCE OF IMMEDIATE SURGICAL INTERVENTION

To reëmphasize the necessity of immediate surgery is more important than to stress any particular item peculiar to any one urologic surgeon, provided that the patient receives free and adequate incisions for drainage.

While the local areas are being examined and shaved, an intravenous solution of normal saline will assist in the relief of dehydration. Ample evidence concerning the urethral caliber can be obtained with a soft rubber catheter, but even this examination is not essential at this time, as the urethra should not be traumatized. It is a fact that upon occasions when perineal diversion of

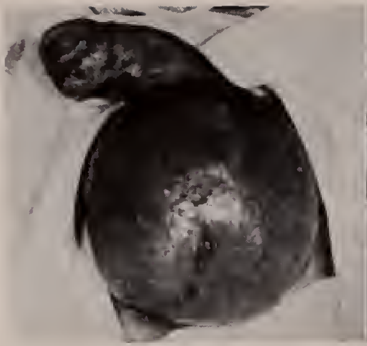

Fig. 1.—Extravasated scrotum and penis.

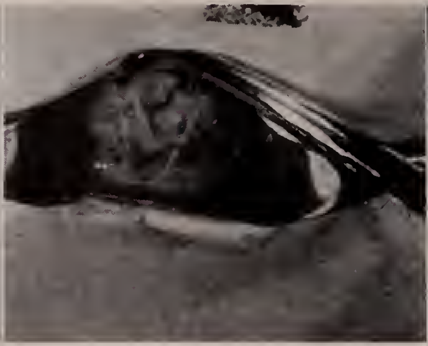

Fig. 2.—Bladder exposed through transverse suprapubic incision.

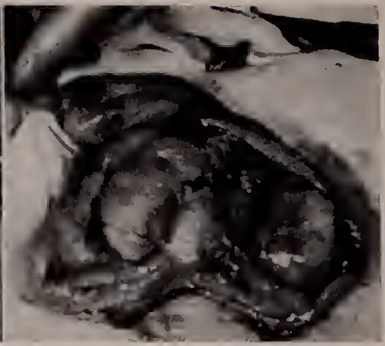

Fig. 3.—Bisected scrotum and dissection throughout scrotal tissue.

the urinary stream is contemplated, even the passing of a guide such as a small filiform will frequently cause the urethra to bleed.

SUPRAPUBIC CYSTOSTOMY

In the majority of instances we resort to suprapubic cystostomy, because we think it is sound therapy and it is not a dangerous operation. In this disease there is not, in our opinion, a single advantage in the transverse over the longitudinal incision. This operation can be a fifteen- or twenty-minute procedure, and in an occasional case we have divided either one of those figures in half. The operating time certainly should be minimized. Through a two-inch incision with a distended bladder, which is the usual finding, only a small area of the bladder at the topmost portion need be exposed. Open, aspirate, and examine the bladder, and allow a Pezzer catheter to remain in place. For exponents of vesical decompression, the technique of inserting a trocar after the bladder is exposed, removing the obturator, and passing a No. 22 Pezzer through the sheath, removing the sheath and attaching this drainage tube to a decompression apparatus, should not be considered a novelty.

Following suprapubic drainage, the patient is placed in the lithotomy position. Completely bisect the scrotum, dissect throughout each half and resort to additional incisions elsewhere in the scrotum, penis, and suprapubic areas, if there is the remotest question of their necessity. Necrotic, or gangrenous tissue may be excised. Nature, however, is a good judge of how much tissue to cast away.

POSTOPERATIVE PROCEDURES

From what we can ascertain from the literature or in direct communication with urologists, there are minor variations in the postoperative methods of treatment in individual clinics. A continuous drip of potassium permanganate through tubes placed into the wounds, in a similar fashion as advocated in the Carrel-Dakin program, is advisable. It should be borne in mind that hemorrhage may be associated with sloughing tissue.

When the patient can be placed in a hot sitz bath two to three times a day, convalescence will be particularly shortened. The benefit of hot water has been strikingly impressed upon us very recently. One extravasated patient, considered to be fairly rapidly approaching death, was for days at a time allowed to remain in a specially constructed bathtub containing a hammock. That patient recovered.

Nature is kind to these unfortunate individuals. Scrotal symmetry is frequently the rule. Skin grafting is rarely required. To assist and perhaps hasten the union of the skin edges, one may keep the skin somewhat separated from the underlying parts by daily application of gauze strips.

When the urethral and periurethral infection and edema of the penis have subsided—which requires approximately ten days—then urethral dilatation is started. From our experience, we personally emphasize the importance of interval dilatation, gradually and slowly increasing the urethral caliber. Upon arriving to approximately a No. 16 Fr., a soft-rubber catheter should be used as an indwelling tube, and the suprapubic cystostomy wound is allowed to close.

In the above description we have not mentioned the technique of dealing with the urethral stricture at the time of the extravasation operation. It is our opinion that cutting the stricture, internal urethrotomy, or even passing the various guides before perineal operation, all add trauma. These strictures soften, and the inflammation and infection recede when one employs this conservative method. Certainly, without a cutting operation into the urethra no more scar can be produced. The necessity to resort to a retrograde method borders upon the unusual in our experience.

To demonstrate many of the above ideas, which are in no way original with us, a case of urinary extravasation due to urethral stricture will be summarized briefly and the preoperative appearance, the surgical technique, and the postoperative management will be shown in motion pictures.

REPORT OF CASE

History.—A male, age sixty-nine years, was admitted to the hospital March 4, 1934. He complained of scrotal swelling for ten days, a mass in the lower abdomen for ten days, and a slow, dribbling, burning urinary stream for fifteen years. Some thirty years ago he had gonorrhea, which had been treated by a druggist.

Physical Examination.—Revealed an elderly white male, acutely ill and in severe pain. A cystic mass (Fig. 1), extending to the umbilicus, was believed to be the urinary bladder. The skin of the penis appeared edematous and the glans penis was scarred. A soft-rubber catheter met an obstruction in the bulbous portion of the urethra. The scrotum (Fig. 2) was reddish brown in color and was distended to approximately the size of an indoor baseball.

Diagnosis.—Urethral stricture with retention and extravasation of urine.

Operation.—March 4, 1934, the afternoon of day of admission, under spinal anesthesia, a transverse suprapubic cystostomy was executed (Fig. 3), with an adequate drainage of all extravasated areas (Fig. 4), by multiple incisions.

Postoperative Management.—This consisted of continuous hot potassium permanganate dressings; ambulation on the fifth day, with hot sitz baths; introduction of a filiform bougie to the bladder and strapped in the urethra on the seventh day; urethral dilatation carried out up to a No. 6 Fr. silk catheter on the thirteenth day (Fig. 5). Interval gradual dilatation followed, until a No. 16 Fr. soft-rubber catheter could be admitted as an indwelling tube. Then the suprapubic Pezzer was removed. At the end of approximately two months (Figs. 6, 7, and 8) the urethra had been dilated to a No. 26 Fr. and the wounds were essentially healed; the patient was discharged with instructions to return for periodic soundings.

CONCLUSIONS

1. This paper is a further contribution for the express purpose of emphasizing the gravity of urinary extravasation.

2. In the majority of cases, neglected urethral stricture is the significant causative factor of extravasation.

3. Urinary extravasation demands immediate radical surgery. No palliative measures are justifiable.

4. There are three paramount courses of action, namely: (1) divert the urinary stream; (2) multiple incisions of all infiltrated areas; and (3) interval gradual urethral dilatation.

5. Dealing with the stricture should be referred to a later time when a process of slow dilatation will produce a more satisfactory result.

6. Suprapubic cystostomy is a highly satisfactory procedure to divert the urinary stream; perineal cystostomy is not to be condemned, but any operation directed toward cutting the stricture at the time of the extravasation, in our opinion, is unwarranted.

1680 North Vine Street.

DISCUSSION

Nathan G. Hale (1127 Eleventh Street, Sacramento). Relating to "the complete confusion of terms," "extravasation" is commendable; the others superfluous, since most of the terms mentioned define degree of extravasation and end-results. Except the lethal usually resulting from the untreated case and the prolonged morbidity of the imperfectly treated case.

The authors deviate from concise management as outlined by the textbooks, and so they should. Each case presents different problems, but all cases demand the immediate drainage best suited to the needs of the patient's immediate emergency, plus adaptability of the physician in charge to carry out that procedure. Stricture, the causative factor, is of minor importance after the extravasation. There is no undilatable stricture—some are more resistant than others. Let us remember, and at this point pay due homage to Keyes, who, in his textbook, said, "Cleanliness is godliness, but gentleness is better." Gentlemen, fewer papers on this subject would have to be written if Keyes' rule or axiom were more closely followed. Immediate radical surgery, after the extravasation has occurred, is really conservative surgery, no matter how radical.

The three principles approved by the writers, (1) divert the stream, (2) multiple incisions, (3) do a urethral dilatation, could be changed to: (1) drain the extravasation; (2) reëstablish the urinary course to the exterior; and (3) prevent secondary infection.

To the urologist the evidence of extravasation is apparent. The method: Proceed without delay. Let us disseminate this information to our brethren, and congratulate the authors on their paper.

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Henry A. R. Kreutzmann, M. D. (2000 Van Ness Avenue, San Francisco).—The authors correctly reiterate the advice to cut and keep on cutting wherever the urine has escaped into the surrounding tissue from a ruptured urethra. The urine itself is toxic, and the fact that it is always infected results in tremendous absorption of poisonous products into the system. The only possible method of removal is, as the Doctors have so emphatically stated, by free drainage with multiple incisions.

The treatment for extravasation of the urine has been very concisely outlined and presented. In this paper no mention is made as to the duration of time the suprapubic drainage should be continued. We have found it advantageous to continue the diversion of the urinary stream until the urethra has been dilated to such a size that filiforms are no longer necessary. This has a twofold purpose. It prevents edema of the strictured area, with its resultant acute retention. In the second place, it prevents absorption of the infected urine, thereby lessening the danger of chills and fever.

Immersing the patient in hot baths is an excellent aid in treatment. Still better, is to put a mild solution of potassium permanganate in the tub. This gives alleviation of pain and at the same time cleans the multiple wounds.

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Louis Clive Jacobs, M. D. (450 Sutter Street, San Francisco).—Doctors Rusche and Bacon emphasize the importance of stricture of the urethra as a contributing factor in rupture with extravasation of urine. It has been my experience that extravasation of urine, as a result of the neglected urethral stricture, is not uncommon. Patients with stricture of the urethra should receive adequate treatment, and be impressed with the importance of reporting to their physician for the introduction of sounds at stated intervals. I usually keep my patients under observation for a period of years, dilating their canals to F. 28. The frequency of treatment depends upon the individual's reaction thereto.

In reviewing case histories, I find many similar to those reported above. Three to ten days have already elapsed before hospital relief is sought, and the record sheet shows urethral instrumentation associated with traumatism. One patient was hospitalized for over three months. His recorded findings were similar to the case history that Doctors Rusche and Bacon report; but his extravasation and infiltration were so extensive that gangrene was present. The perineum, scrotum, testes, and abdomen were involved, with redness and edema of the skin extending to both axilla and along the thighs. He later required plastic surgery.

It is not infrequent to have patients with a brawny swelling located in the perineum, associated with abscess formation, as a result of even a slight abrasion of the urethral walls. In degree, the rupture, which is usually located upon the floor of the urethra, varies from the smallest laceration to a complete tear with solution of the continuity of the urethra, and subsequent disintegration of adjoining tissues. Ultimately urine extravasates into the perineal space and along the planes of fascia to the adjacent structures. Whenever a rupture of the urethra is neglected, some infiltration of urine will occur; which is always followed by sepsis. Even in the presence of sterile urine, the infiltrated area becomes septic; the character of the urine alone influencing the length of time before the patient becomes comatose. Thus, it is evident that an early diagnosis is necessary, so that proper surgical procedures may be instigated.

Such procedures have been thoroughly enumerated by Doctors Rusche and Bacon, whose technique in the treatment of such patients is sound.

STUDIES IN RICKETS*

CLINICAL FINDINGS IN 1,000 PRIVATE PATIENTS

By C. Ulysses Moore, M.D.
and
H. G. Dennis, M.D.
Portland, Oregon

RICKETS has been defined as a disorder of nutrition affecting the body as a whole and, in particular, the muscular, nervous, and osseous systems. The chief etiologic factor is now recognized as a deficiency of vitamin D. In man, vitamin D is formed by the action of ultra-violet rays of a certain wave length (260-315 Mu.) upon the lipoids found just beneath the surface of the skin. These lipoids contain the provitamin, ergosterol, which is changed to its isomere, calciferol,[2] or vitamin D. This vitamin is the catalyzer which causes the two minerals, calcium and phosphorus, to combine chemically as calcium phosphate in the system. Approximately three-fourths of the mineral content of the human body is calcium phosphate.

CALCIUM INTAKE OF PRIMITIVE AND MODERN MAN

Primitive man was created to lead an active outdoor life. It is estimated that he consumed daily two grams of calcium from his 5,000 calories of food. The average adult today consumes approximately only 2,400 calories, or less than half that of his primitive ancestor. Aside from milk, our highly refined diets today furnish a daily average of only 0.17 gram of calcium, or one-sixth the amount required.[3] This is an especially serious defect during growth, pregnancy, and lactation. With this great reduction in our calcium intake, our need of vitamin D is correspondingly increased in order that all the calcium ingested may be fully assimilated.

CLIMATE AND MODE OF LIVING AS CAUSATIVE FACTORS

The climatic conditions of the temperate zones and our highly civilized manner of life also favor the development of rickets. The full effect of ultra-violet rays cannot be obtained through the thinnest of clothing or even ordinary glass. Neither can these rays pass through the pall of haze, mist, fog, smoke, or dust which hangs so constantly over large areas of city and countryside.[4] These factors decrease the natural activation of ergosterol into vitamin D.

All of the other vitamins are found in adequate amounts in the average diet; but vitamin D is limited. Our common foods, with the exception of egg yolk, and to a variable and slight degree, butter, cream and milk, contain practically none of it. Vegetables, fruits, meats, and cereals are all lacking in this factor. Cod-liver oil, of course, is rich in vitamin D. The use of this and other medicinal antirachitics have reduced the frequency of severe types of rickets, such as are readily recognizable by the laity. But how frequently does mild rickets occur? We are asked to prescribe antirachitics without first determining the need through local surveys. Hess[5] believed that no other disease of childhood is so commonly overlooked.

ANALYSIS OF ONE THOUSAND CONSECUTIVE CASES

With this idea in mind the determination of the prevalence of rickets in our own locality was thought to be of interest. For this purpose the records of one thousand consecutive cases, examined in recent years, were reviewed to ascertain the frequency of clinical signs of rickets. Since these children were brought to the office for various reasons, the examination of the bony structure in many of them was only incidental. It is quite probable, therefore, that the frequency of the various signs is understated rather than overstated. That the parents were health conscious is indicated by the fact that approximately 40 per cent of the examinations were "health examinations" in well children. The majority in this series had been given from birth such antirachitics as were available at the time. These measures must have reduced the number and severity of rachitic manifestations in this group below that of the child population of the city at large.

GROUP CLASSIFICATION BY AGE

For purposes of comparison the cases were divided into four groups according to age. The first group contains 226 infants, six months of age or under; the second group, including children from six months to two years of age, numbers 403; the preschool group (two to six years), 329; and the school-age group (six to sixteen), 248. Some of the children are included in more than one group because they were followed for several years; hence the sum of the groups is greater than the total number of children studied.

OSSEOUS SIGNS OF RICKETS

Some controversy has existed as to what osseous signs are necessary for a diagnosis of rickets. All of the signs included in this study, with the exception of the newer one, costomalacia,[1] are considered rachitic by such authors as Hess,[5] Holt,[6] Abt,[7] Griffith and Mitchell,[8] and others. These signs include for the head: bossing craniotabes, large anterior fontanelles (over three cubic centimeters), palpable mastoid or sagittal fontanelles and certain abnormal head shapes—flat or quadratic; for the chest such deformities as: Harrison's groove, beading, anterior softening (costomalacia), and square, funnel, or pigeon breast; for the extremities: enlarged epiphyses, genu valgum, genu varum, and pronated flatfoot.

The occurrence of the abnormalities noted in the skull were found to reach their highest percentage during the first months of life (Fig. 1). Craniotabes is especially evident during the first six months and reached a very high incidence in comparison with other reports. This is of especial significance because it is one of the earliest

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* From Nutritional Research Laboratory, University of Oregon Medical School.

Read before the Pediatric Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935, and Washington State Medical Association at Everett, August 14, 1935.

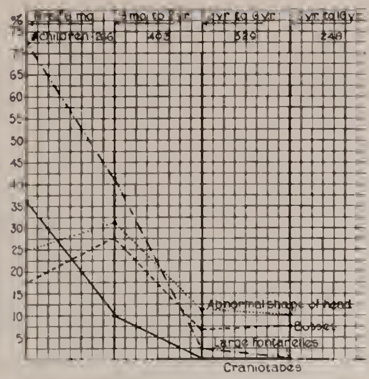

Fig. 1

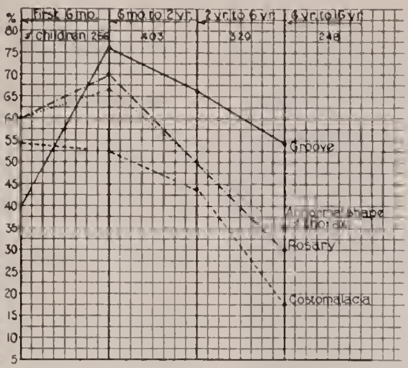

Fig. 2

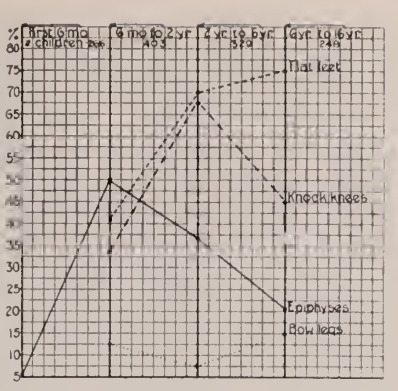

Fig. 3

Fig. 1.—Head signs of rickets by age groups.
Fig. 2.—Percentage frequency of thoracic signs of osseous malnutrition by age groups.
Fig. 3.—Percentage frequency of signs of osseous malnutrition in legs and feet, by age groups.

signs of active rickets. Chest signs, such as abnormal shape, costomalacia, enlarged costochondral junctions and Harrison's groove, are all very frequent in each of the age groups, but reach the highest point between six months and two years (Fig. 2).

After weight is put upon the feet, the changes in the lower extremities, such as bow-legs, knock-knees, and flatfeet, become common, especially the latter two (Fig. 3). These signs reach their highest point during the preschool age and continue at almost that level throughout the period of observation. Griffith and Mitchell[8] also have found flatfoot a common rachitic deformity. Enlargement of the epiphyses is an earlier change, reaching its high point, 50 per cent, during infancy.

PREFERENTIAL SITES OF DEFORMITIES

Our observations are that the most rapidly growing portion of the skeleton at each age shows the greatest abnormality for that period (Fig. 4). Thus the head, which attains its permanent shape shortly thereafter, shows the most frequent signs of rickets during early infancy. Throughout the first year the chest is making its most rapid growth and, therefore, shows at this time its highest percentage of deformities. These stigmata may persist, however, into the older groups. Changes in the extremities become more marked with time and, according to our records, outnumber all the other signs in children of school age.

This study reveals clinical evidence of osseous malnutrition in 97.6 per cent. In only twenty-four children, or 2.4 per cent of the one thousand histories reviewed, is there no record of bony changes attributable to rickets. An analysis of the signs recorded demonstrates (Fig. 5) that the chest findings, groove, beading and costomalacia are the most frequent. It was found that 91.6 per cent of these children had at least two signs of rickets, and that 75.8 per cent had three or more signs.

CONTRAST WITH OTHER LOCALITIES

Other localities have reported percentages practically as high as these we have found in our Portland records. Incidence studies of rickets made on certain groups of children in Hamburg revealed this dyscrasia in 95 per cent; in Riga, 86 per cent; in Boston, 79 per cent; while in Dresden, autopsies on a group of children two months to four years of age demonstrated rickets in 89 per cent.[8]

In a report on the comparative incidence of rachitic signs in children under three years of

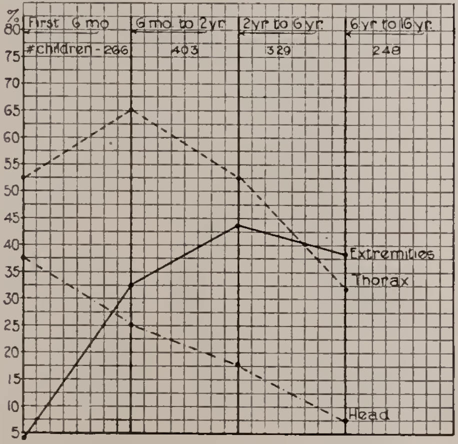

Fig. 4

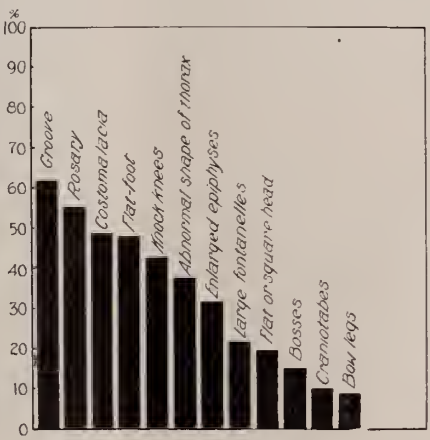

Fig. 5

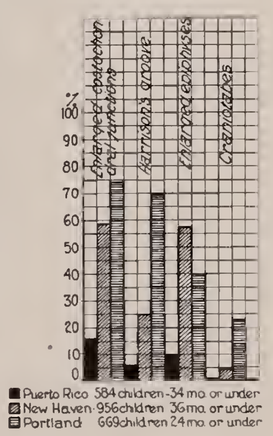

Fig. 6

Fig. 4.—Graph indicating the location of signs of osseous malnutrition in various age groups.
Fig. 5.—Frequency of certain clinical signs of osseous malnutrition in 1,000 children.
Fig. 6.—Comparative frequency of four signs of rickets in widely separated places.

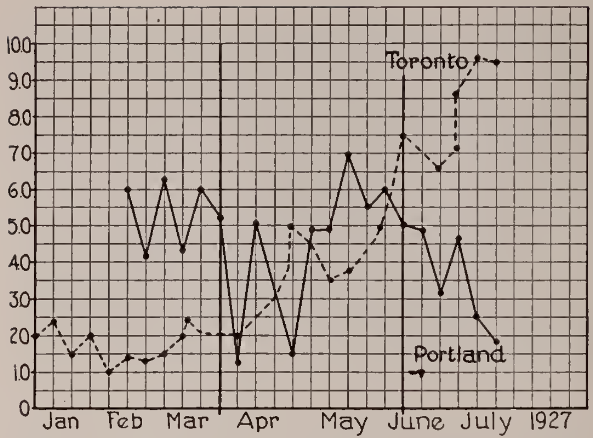

Fig. 7.—Weekly average of ultraviolet light units in the sunshine of Portland, Oregon, and Toronto. Canada (Manville).

age in Porto Rico and New Haven, Eliot[9] found rosary, groove, and enlarged epiphyses quite characteristic of rickets. Her percentages for these signs and craniotabes are compared with ours in Figure 6. It is noteworthy that Portland ranks higher than the other two cities, except as to the epiphyses. Probably we did not examine the wrists with as much care as did Doctor Eliot. Hess[5, p. 214] states that microscopic examinations of the costochondral junctions usually show signs of rickets and that the common clinical error lay in not considering the beading as large enough to warrant a diagnosis of rickets.

A factor responsible for the amount of rachitic stigmata found in the Portland children is probably meteorologic. Although our climate is mild and equable, there is only a 50 per cent annual average of sunshine. Not only do we have less sunshine than in most other parts of the United States, but its quality is vitiated in the summertime by haze and by smoke from forest fires.[10] Manville has demonstrated that during July, when the ultra-violet radiation should be most intense, it is actually considerably less than in midwinter (Fig. 7). Frawley[11] shows that in Fresno, California, "the garden of the sun," the haze which hangs over the valley during the summertime interferes with the transmission of ultra-violet light to such an extent that milk rickets is common even there. Lack of appreciation of these facts causes many parents to omit antirachitic measures in the summertime.

INFLUENCE OF ULTRA-VIOLET LIGHT

The development of a normal skeleton depends not so much on the amount of available ultra-violet light, but rather on the amount that actually reaches the nude skin. This fact is responsible for the presence of rickets, to an extent often not appreciated in even the most favorable climates. Holt well says, "Rickets is perhaps the most common disease of childhood." In sunny Utah, with its clear atmosphere, the marked case of rickets shown in Figure 8 developed. The farm that produced this prize rooster produced also this human specimen of classical rickets, with its square head, large epiphyses, bowed legs, and flatfeet. Abundance of sunshine may give a false sense of security.

Although, according to present theories, the climate of the Pacific Northwest should produce them, we have never seen in Oregon a severe case of rickets, possibly because the need of antirachitics is generally known and applied. However, the common garden variety of mild rickets is evident in most properly taken nude photographs of children (Fig. 9). The correction of these milder deformities early is essential to the development of stronger, sturdier adults. For example, the elimination of flatfoot would increase the economic value of many individuals. A heavy responsibility, therefore, rests upon every physician who examines children.

GREATER HEIGHT FOUND IN WEST COAST NATIVES

Rate of growth is another important factor in the development of rickets. Mankind is growing taller in each succeeding generation, the average gain being three inches in the past four decades. Our army and navy records show that the West Coast produces our country's tallest men. In consequence, the medical profession here is confronted with the problem of strengthening the osseous system in proportion to this increased growth. A sturdy-looking, well-built youth, included in our series of cases, who has now attained a height of six feet two inches, recently fell in his own front yard while whirling on his toe and suffered seven fractures of the tibia. At an earlier age this boy exhibited eight of the

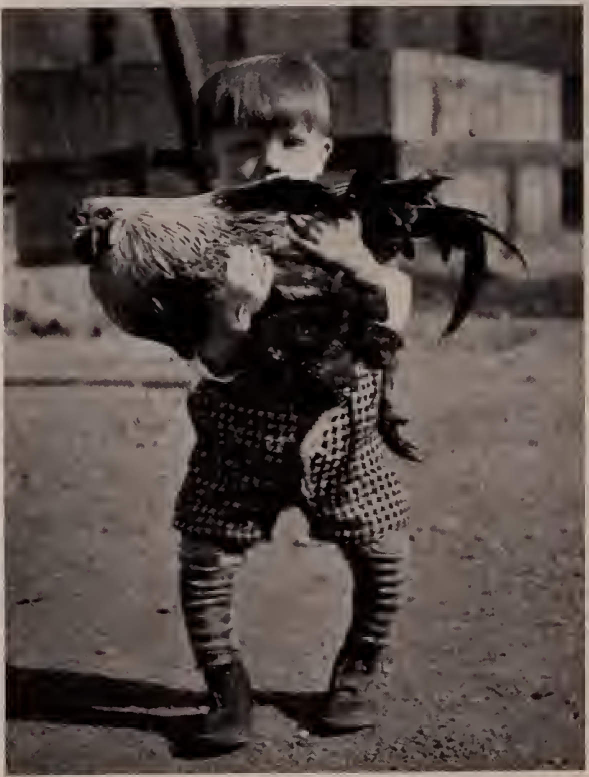

Fig. 8.—Example of severe rickets in a sunny clime with quadratic head, enlarged epiphyses, genu varum, and flatfoot (courtesy E. H. Christopherson, M. D., San Diego).

twelve signs of rickets listed in this study. Is it not probable that the same deficiencies, formerly manifested as rickets, are now appearing as osteoporosis?

PREVENTION

The various antirachitics so far in general use have not been sufficiently effective to prevent entirely osseous malnutrition, even though treatment was begun in the prenatal period. We formerly depended on cod-liver oil, but when three tablespoons daily failed to prevent rickets, we added artificial ultra-violet light, with slightly better results. Later viosterol was also given. That some improvement, however, has resulted from these antirachitic measures is evidenced by the fact that only nine of the 114 cases of craniotabes in this study were seen in the last two years. Doubtless, we can expect further advance toward our goal of perfect skeletal development through the application of additional antirachitic measures. The ideal antirachitic requires little or no maternal cooperation. The recently developed irradiated milk meets this requirement, and is the most reliable and natural preventive of rickets.

Since our living habits interfere with the proper irradiation of ergosterol in the skin, let us compensate for this lack by irradiating a common article of food. Of all of our foods, milk is the richest storehouse of calcium and phosphorus. It also contains some vitamin D, as well as the provitamin which can be changed to vitamin D on short exposure to ultra-violet rays. Thus, in one food are combined the three elements essential to normal bone formation—calcium, phosphorus, and vitamin D.

COMMENTS

A diagnosis of rickets is said by some to be impossible without roentgenograms, and quantitative determinations of the calcium and phosphorus of the blood serum. We recognize the advantage of these laboratory aids in ascertaining accurately the degree of disturbance in acute rickets, and in its differentiation from certain pathologic conditions and endocrine imbalances. We realize also the limited frequency with which such tests can be utilized in mild conditions.

For practical purposes clinical criteria must be adopted. Often, too, when one sees a child for the first time the acute rachitic process is past, but its residua are easily apparent. Photographs in front of a cross-lined screen are valuable for accurate diagnosis and for evidence of improvement. The retaking of such pictures every six months assists in obtaining both patient and parental cooperation in corrective measures.

We, therefore, believe it to be the part of wisdom to accept as signs of rickets those clinical manifestations which have proved acceptable during the past three centuries of scientific study of rickets. One is reminded of A. Graeme Mitchell's remark,[12] "One hardly needs a thermometer to tell him that water is hot when it burns his skin." Degrees of osseous malnutrition, rachitic in type, are palpable to the sensitive hand and visible to the practiced eye. When these defects are pointed out early, before reaching severe degrees, therapeutic measures are more successful. With younger children a roentgenogram of the wrist assists greatly in determining the need for combining endocrine and antirachitic therapy.

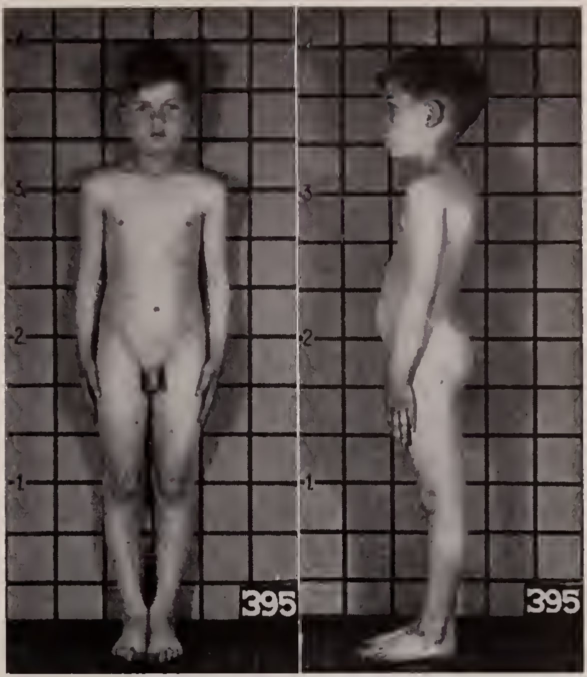

Fig. 9.—Mild rickets indicated by flat chest, bow-legs, and flat feet.

SUMMARY

1. Mild rickets is more common than is generally appreciated.
2. Lack of vitamin D is the most important factor in the etiology of rickets.
3. In man, Vitamin D is formed by the action of ultra-violet light on the lipoids of the skin.
4. Our habits of life prevent sufficient utilization of the available ultra-violet rays by the body.
5. The amount of ultra-violet light available depends on latitude, climate, and atmospheric conditions.
6. Portland, Oregon, has low average annual sunshine and atmospheric conditions which impair its usefulness.
7. At least 97.6 per cent of one thousand private patients examined had one or more clinical signs usually associated with rickets.
8. Of these, the chest signs, beading, groove, and costomalacia were most common.
9. The greatest number of clinical signs were found in the most rapidly growing parts: first the head, then the chest, and later the feet and legs.
10. Under our present dietary and living conditions, the antirachitics so far in general use have been unable to prevent a high percentage of mild rickets. Perhaps the universal use of vitamin D milk will accomplish this.
11. If an improved skeletal development is to be attained in the coming generation, the medical profession and the laity must be awake to the prevalence of bony imperfections and be alert to apply available preventives.

825 Medical-Dental Building.

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THE LURE OF MEDICAL HISTORY†

JOSEPH POMEROY WIDNEY, A.M., M.D., D.D., LL.D.

FOUNDER OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION AND OF THE COLLEGE OF MEDICINE OF THE UNIVERSITY OF SOUTHERN CALIFORNIA, CIVIC WORKER AND AUTHOR: SOME BIOGRAPHICAL NOTES ON A COLLEAGUE, WHO, AT THE AGE OF 95, STILL "CARRIES ON"*

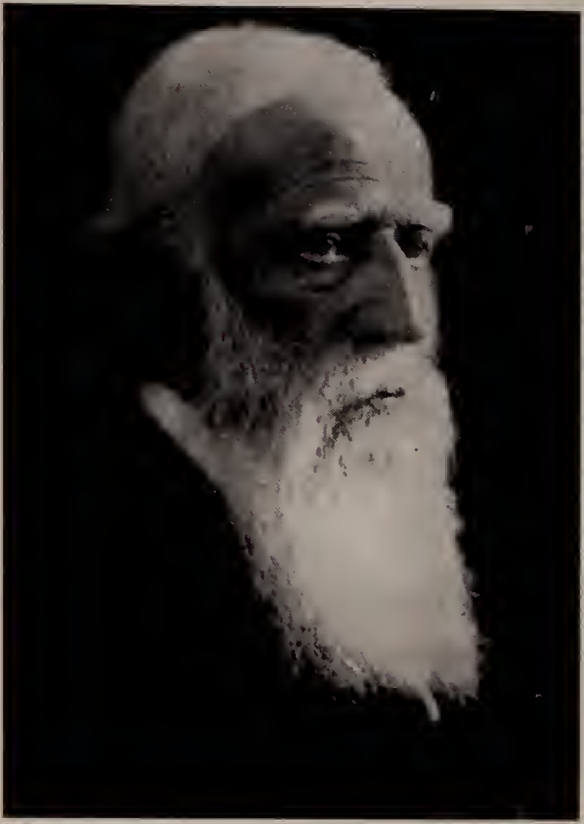
By E. T. W.

PART 1

It is not given to every man, on attaining the ripe old age of four score and fifteen, as has been accorded Dr. Joseph Pomeroy Widney, the veteran physician and distinguished scholar of Los Angeles—who on December 26, 1935, celebrated his ninety-fifth birthday—to look back with modest complacency on a life so well spent and eminently fruitful.

THE DAYS OF YOUTH

Born, in 1841, among the forests of Miami County, Ohio, and in sight—as he himself expresses it—of clusters of Indian wigwams, the son of Wilson and Arabella (Maclay) Widney, of sturdy Scotch and Huguenot ancestry, Joseph Widney inherited the very qualities needed to rise out of, and beyond his almost primeval environment. He pursued the required courses of the Piqua high school, and from there entered Miami University at Oxford, Ohio, where his encounter with the academic authorities foreshadowed a mind inclined to think and act for itself. He had read history, he told the president, and had already taught trigonometry, and all that he wanted was more Latin and Greek. He commenced college work as a sophomore, only to leave the classic halls at the end of five months, in voluntary response to a call to arms in defense of his war-torn country.



JOSEPH POMEROY WIDNEY, A. M., M. D., D. D., LL. D.
Founder of the Los Angeles County Medical Association and of the College of Medicine of the University of Southern California.*

After shouldering musket and rifle in the field young Widney entered the hospital service on the steamers of the Ohio and the Mississippi. Then, with failing health in the late autumn of 1862, he came to California.

GRADUATION FROM TOLAND MEDICAL COLLEGE IN 1866

Arriving at San Francisco, he continued the literary courses begun at Miami, in studies pursued at the University of the Pacific, where he was made a Master of Arts; and after that he matriculated in Toland Medical College, later absorbed by the medical department of the University of California, from which institution in 1866 he received the M. D. degree. Looking backward to those postgraduate days, he recalls, as among his instructors, the surgeon, Dr. Levi Cooper Lane, who founded Cooper Medical College in honor of his uncle, Dr. Elias Samuel Cooper. He also remembers Dr. Henry Gibbons, professor of Materia Medica, of good old Quaker stock and marked manners as a gentleman; an earnest temperance lecturer, with a peculiar, dry humor, who, as president of both the San Francisco and the California State Medical societies, reached eminence. Another lecturer brought to mind was Dr. H. H. Toland, a South Carolinan, "a good, practical surgeon, a man of great capacity who made money and made it rapidly, and built, at his own expense, Toland College." A daughter of Doctor Toland married Andrew Glassell, a leading attorney of Los Angeles.

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† A Twenty-five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

*The Council of the California Medical Association recently authorized the editor to arrange for the sketch presented, the result of a pleasant interview. See also page 251.

* This is a photograph of Dr. Joseph P. Widney, taken in the year 1936, and shows his appearance at the age of ninety-five.

SERVICE IN THE UNITED STATES ARMY: SURGEON IN DRUM BARRACKS, WILMINGTON, AND IN THE ARIZONA-APACHE CAMPAIGN

Returning to military duty in the United States Army, when General David McMurtree Gregg, commanding the Department of the Pacific, came down the Coast from San Francisco with recruits on the old side-wheeler, the steamer *Orizaba,* Doctor Widney, after a month at Drum Barracks, at Wilmington, started for Arizona in charge of some hundreds of recruits and saw two years of arduous service in Arizona in the campaigns of 1867 and 1868 against the Apaches. The unadorned narratives of his adventures during the rough formative periods of that corner of the Southwest might well afford fireside entertainment.

"Leaving Drum Barracks and San Pedro," he says, "we started out for Arizona through San Gorgonio Pass—I on horse, but most of the recruits on foot. From there we crossed the Colorado Desert, and went into camp somewhere below Palm Springs. By the eighth of March we were crossing the desert, and such was the sudden change that two men dropped in their tracks, overcome by the heat. Then we started to climb Granite Wash, some sixteen miles of upgrade, and when we were about half way, a thunder storm broke in the mountains. Lieutenant McConnihe brought the troops to a halt, and gave orders to pitch camp. I immediately objected to the site, considering it unsafe; but the lieutenant replied that, as the wagonmaster had made the selection, the decision would stand. A short time, however, after the men had unhitched the wagons, we heard a roaring in the mountains, and I at once knew what it portended; and in a moment, seeing the waters rushing down, with a ten-foot head, I shouted to the men to jump for the rocks as quickly as they could and save their lives. The water actually seemed to leap from rock to rock, bounding and rebounding eight to ten feet high before hitting the earth again. About half of our wagon-train was swept away, a severe loss since many of the wagons were loaded with barley, which, scattered by the flood, caused a sixteen-mile field of barley to spring up. Moving on to the territory due north, I helped to reëstablish Date Creek Post. I was next, for some months, on duty scouting over the northern part of the territory.

JOSEPH P. WIDNEY, M.D.
Reproduction of a photograph taken between 1870 and 1880.

"I then received orders to take charge as surgeon at Apache Pass in the southern part of the territory. In company with a small band of officers likewise ordered to the south, and with an escort of soldiers for greater safety in the Indian country, we crossed fifty miles of desert without water, traveling all night because of the heat. Passing on through Tucson, I went to my own post at Apache Pass, over a hundred miles east of that town. At that place I remained on duty for a year, and built the Post hospital; and that year was also spent, for the most part, on scouting duty. Lieutenant Carroll, commander of the Post, was killed by the Indians in one of their raids. I carried his dead body back to the Post strapped across my saddle. A civilian, killed with him, was buried by his side. In our last scouting trip, we were without water for twenty-four hours, traveling through the grass fires which the Indians had set to hide their trail. The heat was intense and the men were becoming exhausted. Dismounting, I put them, by turns, on my horse, riding, while I myself went along half the day on foot, carrying a heavy rifle, and having an army revolver and a cartridge box buckled around me. The only thing that saved our whole command from perishing was the accidental discovery of water, of which the guide had not known, at a small stream in the mountains.

"On this scouting trip we buried the dead bodies of two men killed by the Indians several days before. They had been put to death by torture, walking in a circle until they had worn a pathway. I had the men, by details, look at the dead bodies, telling them, 'That is what you may expect if ever you surrender; so fight to the last, and make them kill you.' The men dug a shallow grave with their bayonets, rolled the putrid bodies in, and covering them with stones to keep away the coyotes, we then left them to their last sleep away up in the Chiricahua Mountains, where they gave their lives to make safe the peaceful homes which now lie in the valleys below."

ENTRANCE INTO PRIVATE MEDICAL PRACTICE IN LOS ANGELES IN 1868

In 1868, after reporting at headquarters in San Francisco, Doctor Widney left the army and settled for private practice in Los Angeles, where he has since remained, a decidedly influential force in both the development and the upbuilding of the community. He opened his first office in the old Temple Block, now torn down. At that time his professional associates included the esteemed Dr. John Strother Griffin, brother-in-law of General Albert Sidney Johnston, a surgeon in the old army of Mexican War times, and once half-owner of the site of Pasadena; Dr. Richard Den, a true Irish gentleman of dignified mien and striking personal appearance, especially when on horseback; Dr. William Francis Edgar, also a surgeon of the old army before and during the Civil War, who had seen much service against the Indians and became, in his will, a benefactor of the Historical Society of Southern California; and Dr. Pigne Dupuytran, who was in charge of the French Hospital. Doctor Widney enjoyed his share of a growing local patronage, the citizens of Los Angeles learning, little by little, that it was not always necessary, as in earlier days, to go north for expert medical care. Even when Los Angeles had some 5,000 souls, San Francisco boasted of more specialists, such men as Doctors Cooper, H. H. Toland and John James Sawyer having an especially enviable reputation. Occasionally, a distinguished traveler came the doctor's way; as, General William Tecumseh Sherman, who once passed through en route to the East, a little worried as to the state of his lungs, and who, Union veteran though he was, soon sent for Doctor Griffin, of Confederate sympathies. The latter called in Doctor Widney for consultation; but the two M. D.'s decided that General Sherman had no cause for alarm. Less distinguished visitors than the hero of "The march through Georgia" also came to Los Angeles; as Tuburcio Vasquez, the notorious bandido, who proved one of the most suave and courteous of prisoners, bowing and throwing kisses to the ladies, in turn storming the jail doors, and bringing him flowers. His demeanor, indeed, was such that "Billy" Rowland, then sheriff, was inclined to afford him some leniency, particularly as Vasquez was wounded; but Doctor Widney, when called in to see the prisoner, said: "Billy, this man is perfectly able to jump on a horse and ride fifty miles without stopping, and I think that, instead of giving him any privileges, he should be chained, and fast, to the bedposts." Rowland followed the doctor's common sense suggestion, and added weights to the handcuffs, which may explain, in part, why at last this bandit, long the terror of the country, was actually executed.

JOSEPH P. WIDNEY, M.D.
A photograph taken between 1880 and 1890.

FOUNDING OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION, ON JANUARY 31, 1871*

Three years or less after he had established himself in private practice, Doctor Widney issued a call for the founding of the Los Angeles Medi-

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* Editor's Note.—The exact date of founding of the Los Angeles County Medical Association is January 31, 1871; no authentic record of any medical society existing previously in Los Angeles having been found. Years ago—that is, in 1911—while compiling a "History of the Medical Profession of Southern California," our attention was called, by an officer of the Pioneer Society of Los Angeles, to a fee table of 1850, found in the Court House by Sheriff William R. Rowland (the same genial, doughty "Billy" mentioned by Doctor Widney in his reminiscences of the bandit Vasquez), and this list of fees was printed on page 8 of the book. Between the year of the fee table, however, and that of the Society's founding, is too long a period to permit even poetic imagination to affirm that 1850, the time of agreement by the four pioneer Los Angeles physicians—A. U. Blackburn, Charles R. Cullen, J. W. Dodge, and W. B. Osbourn—constituted the founding date of the Los Angeles County Medical Association!

The oldest medical society of the State, according to California Medical Association records, is the San Francisco Medical Society, which was organized on January 1, 1868, and the second oldest society is the Sacramento Society for Medical Improvement, established on March 17, 1868, some three months after the San Francisco association was formed. The Los Angeles County Medical Association followed on January 25, 1871. Early in 1871 the Alameda County Medical Society was organized; four years later, in May, came the San Joaquin County Medical

cal Association, having satisfied himself of the need of just such an organization, and that, just then, there was nothing similar in the southern part of the State. He brought together, on January 31, 1871, some seven physicians who soon adopted a constitution and by-laws, and chose for their president, Dr. John S. Griffin, patriarch of the Los Angeles medical profession.[†] At the next meeting, on February 7, Doctor Widney was notably active—reporting an amendment to the constitution concerning the status of honorary members, and helping to formulate a bill, adopted March 7, fixing fees to be authorized. In 1877, the subject of our sketch was elected president of the Society, and for six terms he acted as one of the censors, the successive minutes—as of other organizations with which he became identified—showing his eager and untiring participation in all the constructive work that had to be done.

SERVICE AS A PUBLIC HEALTH OFFICER

As early as February 1, 1876, Doctor Widney called the attention of the Society to the unsanitary condition of the city, and the need of a board of health and health officer, the minutes recording, "Upon motion of J. P. Widney, a committee of three was appointed to draw up a communication to the City Council urging the importance of establishing a Board of Health, and the appointment of a Health Officer; when the President appointed as said committee J. P. Widney, H. S. Orme and J. H. McKee." Somewhat naturally, Doctor Widney in time served on the Los Angeles Board of Health, when Dr. J. B. Winston was health officer, the latter having succeeded Dr. Walter Lindley. Doctor Widney was also for several years a member of the California State Board of Health.

STUDIES ON CLIMATOLOGY OF SOUTHERN CALIFORNIA

These studies of sanitation and similar subjects bearing on public health turned the Doctor's attention to climatology, and he gives us an interesting paragraph or two about the results:

"When I was stationed as post surgeon at Apache Pass, Arizona, in 1867-68, I made monthly reports to the War Department upon the climate of that section. Indeed, in nearly a year of active campaign duty which covered almost the entire territory, I reported all the facts that could be noted without the use of instruments. These reports included data as to sunshine or occasional clouds, variations of temperature, wind and rain storms, mountain floods and water supply. On my return to California and Los Angeles, I resumed my studies of weather and climate, and their effect upon health. I kept in close touch with both the United States Signal Service, after its establishment here, and private observers who often were among the most enthusiastic. And I published in the city press and magazines many articles, and issued numerous pamphlets, seeking to direct the attention of the public to more thought upon these subjects, to me, more than ever, matters of importance. I gave expression, too, to many theories and convictions in the introductory chapters of 'California of the South,' a volume first published in 1888, and reissued in 1896 when, with Dr. Walter Lindley, I discussed the physical geography, the climate, mineral springs and health resorts of Southern California, and helped with him to provide one of the earliest guidebooks to this region."

ADVOCACY OF FLOODING OF THE COLORADO DESERT

Growing out, also, of these general studies of climatology, were efforts made by Doctor Widney for the flooding of the Colorado Desert—first suggested by him in an article published in the *Overland Monthly* in 1873—and the setting aside of great forest areas for the benefit, in a conservation of resources, of generations to come. The flooding of the desert, according to Doctor Widney, is now going on through seepage from irrigation in the Imperial Valley; hence, the Salton Sea, which is steadily increasing in size, year by year, is already having a material influence upon the climate of the Lower Colorado Basin. In first proposing to set aside the three forest reservations, Doctor Widney gave impetus to the great work of securing the present water supply for Los Angeles. Laying his arguments before the proper authorities, he suggested making one reservation of the forests north of Los Angeles and toward Santa Barbara, another in the mountains eastward about San Bernardino, and a third in the mountain region about San Diego; and this personal effort on behalf of posterity was handsomely acknowledged when the Government declared reserved the very areas in the Widney recommendation.

(To be concluded)

Society, and on September 5 of the following year the Santa Clara County Medical Society began its existence.

The Medical Society of the State of California, first organized in 1856, recessed in 1862, and was reorganized in 1870. In this connection, as an interesting item shedding light upon the distribution of population and the state of organized medicine in California, is the fact that the first physician residing south of the Tehachapi ever to be elected president of the Medical Society of the State of California was the late Henry S. Orme of Los Angeles, who was installed in 1879; he was followed in 1890 by the late Dr. Walter Lindley of Los Angeles. Six years later the late Dr. William LeMoyne Wills of Los Angeles headed the Society, to be succeeded in 1898 by the late Dr. Cephus L. Bard of Ventura. In 1905 the late Frank I. Adams of Oakland was president; while the only other presidential colleague from Alameda County prior to Doctor Adam's election was the late Dr. W. P. Gibbons in 1886.

[†] An excerpt from page 32 of "The Medical Profession in Southern California," printed in 1910, gives further information concerning the founding of the Los Angeles County Medical Association:

"A brief sketch, written by the secretary of the Society in 1891, Dr. H. Bert. Ellis, presents a summary which can be used as an introduction to the detailed historical sketch of the Los Angeles County Medical Association.

"The Los Angeles County Medical Association was organized January 31, 1891.

"A preliminary meeting had been held at the office of Dr. H. S. Orme on January 25, at which six physicians were present, and at which time Doctors Orme and Hayes were appointed a committee to draft a constitution and by-laws.

"On January 31, at the office of Doctors Griffin and Widney, this committee reported. Seven physicians were present and organized themselves, adopted a constitution and by-laws, and adjourned to meet at the same place on February 7. The seven charter members who signed the constitution on the evening of February 7, 1891, were: John S. Griffin, Henry S. Orme, Joseph P. Widney, William F. Edgar, R. T. Hayes, L. L. Door, and T. H. Rose."

TWENTY YEARS OF SANITARY ENGINEERING IN CALIFORNIA

By C. G. Gillespie*
San Francisco

IN 1915 the California Legislature, harassed by sanitary problems and pursuing the precedent of a few other states, provided a Bureau of Sanitary Engineering in the State Board of Public Health. It has since been maintained with appropriations varying from $15,000 to $25,000 per year. The Public Health Act of 1907, providing for a permit system and state approval of plans and sites, has been rigorously applied to sewage disposal projects, and, as far as time has permitted, the companion Sanitary Water Systems Act has been applied to water supply. Largely as a result and also influenced by the general improvement in sanitary engineering knowledge throughout the country, and the promotion of better sanitation by health officers, water supplies and sewage disposal are far from the plague they once were, as this review will indicate. It is the story of the quiet work of many people throughout the State, with the bureau as its center.

The highlights of accomplishment where contrasts of past and present are striking may be recounted as follows. Prior to 1915 so few sewage treatment plants had the benefit of wise selection of sites and methods of treatment that out of some eighty-two works built in California up to that time, forty-five, or over half, have since been abandoned. Out of 181 sewage treatment plants built under state supervision since 1915, only ten plants have had to be replaced by others. The longer life of usefulness of so many plants must have been worth huge sums to the cities and towns of the State. So, too, has been the almost total absence of litigation over unsanitary sewage disposal and water supply; and also the movement which the State is in peculiar position to foster, whereby communities have joined in the common disposal of their sewage. Nine treatment plants now solve the problem of disposal for forty-three communities and spare a large countryside the annoyance of neighboring sewage works.

Through attacks by many agencies, on many fronts, the greatest of which is water disinfection and better laboratory control, typhoid fever epidemics, as derived from water, have almost disappeared, the last water-borne outbreak in California having occurred in 1924. Prior to that time, scarcely a year failed to produce one or more water-borne typhoid outbreaks. Sewage treatment prior to 1915 was limited almost entirely to septic tanks. The designs of the bureau for a trickling filter at Reedley in 1915, and for an activated sludge plant at Folsom Prison in 1917, inaugurated the two most common of the high grade or "complete" processes of sewage treatment to be seen in the State today. Nearly half of the present-day sewage treatment works represent "complete" processes in which not only is the sludge removed from the sewage, but the sewage is rendered clear and odorless. Recently a few plants have also disinfected the effluent and several have been induced to employ better odor control in the plants. Odorless sewage disposal, now gaining recognition throughout the country, has always been emphasized since the Bureau was created.

One hundred forty-three places have put in new sewer systems since 1915 and the State is in a fair way to attain, generally, the convenience of sewerage and plumbing—probably within another twenty years.

By reason of the endemic and epidemic typhoid fever which kept the State alarmed, the first major task in 1915 was to raise the safety of water supplies. The Bureau at once established state-wide bacterial control of water systems and largely as an outcome of this many dangerous supplies were abandoned, others protected, and almost 150 places have provided some form of water treatment, the most common of which is water disinfection. The only water purification prior to 1915 was a sort of straining practiced at three or four places and some attempt at water disinfection. There are now thirty-six filtration plants, about half of which will compare with any in the country. More recently, municipal water softening has appeared. All these waterworks have a frequent bacterial control through the water department or the health department. It may be hard to realize that in 1915 few waterworks men were willing to have their water tested.

Cross-connections between private and foreign sources of water are generally considered to represent the last remaining common menace to the purity of water supplies. Not less than one thousand of such connections have been done away with in this State within recent years, under plans prepared or approved by the Bureau.

Each year approximately one hundred water supplies are reported on for certification to the United States Public Health Service, which in turn certifies them by reason of their use on some three hundred common carriers.

There are approximately eight hundred waterworks and sewer systems in California. These have been inspected at irregular intervals and in 1930 to 1932 all municipal systems, aggregating about seven hundred, were surveyed systematically and fully reported by the Bureau. Standards of sewage disposal in state institutions have been brought to a high plane through the concerted planning by the Bureau of the State Department of Engineering, which actually builds the works.

State swimming-pool sanitation was pioneered in California in 1917. The number of pools is now close to three thousand. Almost all the states have followed closely in the path this State has set.

With the City Health Department of San Francisco, sanitation of oyster beds, clam beds, and shellfish shucking plants was inaugurated here a few years ago. Statewide regulations were devised and we believe the program accounts in large part for the recent reduction of typhoid fever to the vanishing point in San Francisco, the shellfish center of the State.

Mosquito and malaria control have been organized on a wide scale, particularly in the Sacramento and San Joaquin valleys. The malarial fevers and mosquito pests of not many years ago are probably still fresh in many minds.

Rural sanitation has been aided by the distribution of thousands of copies of bulletins giving instructions on rural sewage disposal and water supply, and country homes now generally enjoy piped water and city plumbing. Cropping of sewer farms has been under State regulation since 1917.

Standards of sanitation in the mountain playgrounds have been established on an exceptionally high plane in coöperation with the National Forest Service. The squalid camp grounds and roadsides of fifteen or twenty years ago are seldom seen nowadays. Through the early work of the Bureau and the sanitary inspectors, the purity of Lake Tahoe was saved for recreation and water supply. One of the first tasks in 1915 was to undo the running of sewers into the lake, then a common sight at nearly every resort.

In twenty years it is easy to forget the innumerable and notorious instances of stream pollution that plagued the State a generation ago. For example, there was Merced River which was receiving sewage in the heart of Yosemite. Auburn Ravine, below Auburn, was substantially a sewer. Yuba River, opposite the Marysville sewer farm, kept two cities in a turmoil. The blue water of the Feather River, at Oroville, could not be used on account of the taint of sewage. Tuolumne River, below Modesto, was a source of endless complaint. The Sacramento River, at Dunsmuir, was notorious for the piles of sewage along its edge. Kings River, at Reedley, aroused Kings County into an expensive litigation against the city. Sonoma Creek, below Sonoma State Home, was a source of stench through a famous vacation belt. Truckee River, at Truckee and Floriston, was useless even for fishing. Santa Rosa was suffering under a 27-year-old suit by reason of pollution in Santa Rosa Creek. Napa River, from Calistoga to its mouth, polluted near-by wells, caused offensive odors, and prevented picnicking on its banks. Several of the famous beaches of the State were under quarantine at one time or another. For example, the beaches at Santa Cruz, Capitola, Santa Barbara, Monterey, and the wonderful beaches off Santa Monica, Venice,

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* Chief, Bureau of Sanitary Engineering, California State Board of Public Health.

Hermosa and Redondo and Long Beach. Recently, a noteworthy dent has also been made in reducing the sewage pollution of San Francisco Harbor through the construction of several sewage treatment works.

There were also many notorious sewer farms and sewage treatment works that no longer occupy the picture. For example, the sewer farm at Pasadena, once the occasion of a complaint by six thousand people; numerous sewer farms in Orange County, which were replaced by a joint outfall to the ocean; sewage works right in the towns of Gilroy, East San Jose, College Park, Santa Clara, San Luis Obispo, Yreka, and Beverly Hills. There were scores of others of which space does not permit mention.

It is hard to believe that in 1915 cities like Antioch and Pittsburg used river water practically without treatment and at the same time ran their sewage back into the same stream. Imperial Valley and the Mother Lode towns had no treatment of their ditch water other than passage through small weed-grown settling basins. The water supplies of the East Bay cities was a source of daily complaint. The same was true of the water supplies at Los Banos, Eureka, and Beverly Hills. Now excellent filtration works, or in some cases simpler devices, have disposed of the problems of all these places, troublesome alike to customer and management.

The work of state sanitation has followed many other trails, more or less related and contributory to those illustrated. For example, there has been much work on the water supplies of the State with reference to iodin and goiter; fluorin and mottled enamel of teeth; behavior of cyanids in water supplies; field and laboratory studies of the various industrial wastes common to this State, particularly canneries, milk plants and beet-sugar factories; pollution studies of streams; hundreds of performance tests of waterworks and sewage treatment works as a means of perfecting and maintaining good operating conditions; mapping nuisances around numerous sewage disposal areas; silicosis hazards in industry, and like tasks. Standards of sanitation for bottled water plants were once devised. Though never adopted, they have been widely distributed and had noteworthy educational influence. An important, in fact indispensable arm of the Bureau, has been a sanitary engineering laboratory in which tens of thousands of water samples have been examined and in which test methods have been perfected for the examination of water, sewage, and trade wastes. Research into the character of these substances and methods has also featured the laboratory work.

One scarcely realizes the massive improvement in the sanitary engineering environment of the State until viewed in retrospect over such a term of years. In spite of the progress, however, scores of troublesome problems, particularly the expensive and difficult ones, still remain.

CLINICAL NOTES AND CASE REPORTS

LUNG FAILURE

By John W. Shuman, M.D.
Los Angeles

Lung failure may be minute or severe. It happens at birth—collapsed or atelectatic lungs; and it takes place in senility—wet or hypostatic pneumonia.

There are many degrees of many maladies, affecting many lungs differently.

1. Anatomically (malformation);
2. Physiologically (acidosis);
3. Pathologically (inflammation); and
4. Combining forms of these three.

The inadequate bellows of a congenital pulmonary insufficiency, either on account of defective central or peripheral innervation, circulatory, muscular, or bony development or injury, needs recognition, study, and sane management. Often we see "the Mark Twain type of steamboat" lung—the one that had an engine with a four-foot boiler and a twelve-foot whistle, and every time the whistle was blown the engine stopped!

Physiological lung failure is exemplified in the habitual inadequate breather, the acidotic, the asthmatic, and the endocrine-imbalanced individual, and are not uncommon. These are for the most part compensatory affairs.

The pathological causes for lung failure are legion, only the grossest getting attention, often too late. Such chief complaints as cough, expectoration, hoarseness, pain, or shortness of breath call for:

1. Inspection, in a good light for asymmetry, defects, lagging and abnormal pulsations.

2. Palpation, to confirm or dispute No. 1, for muscle spasm, tenderness, and thyroidal, lymph and breast lumps.

3. Percussion, to "sound" the intrathoracic organs and liver. But let us not fool ourselves: after listening (auscultation), take a look with the fluoroscope.

4. Auscultation, with the unaided ear (because we always have it with us). Know normal heart and lung sounds, then it is not difficult to hear the abnormal.

After these four steps:

5. Contemplate and make provisional diagnosis or diagnoses. Then try to disprove ourselves, instead of "crooking" to bolster up our diagnosis. Use the hollow needle, if we suspect fluid; use clinical and x-ray laboratory assistance for sputum, blood and tissue study; also the bronchoscope. And if a demise, a thorough-going autopsy.

REPORT OF CASES

One is one; two, a couple; three, the fewest of a few—here are three:

Case 1.—A fairly common cause for lung failure. A 24-year-old mother of an eleven months' child was first examined December 31, 1934, whose pediatrician told her, four months ago, "to take cod-liver oil." It did not cure her. Yet an x-ray technician, not a physician, referred her last Monday, and I found her temperature 102 degrees at 2:30 p. m., pulse 115, cheeks flushed, playing of alae of nose, fast, shallow breathing, lagging of right chest, numerous râles which did not clear on coughing, cavitations on right, while the fluoroscope confirmed the diagnosis of "advanced, active consumption." I referred her back to the x-ray technician for a "chest plate" for record. Died November 23, 1935.

⁂

Case 2.—A left-lung affair in a 26-year-old single woman who "had 'flu' in France," recovered, but "spit up" for a long time afterward. In March, 1934, she had a chest cold. A physician told her to go home and go to bed for ten days. He reëxamined her and said to remain in bed. I saw her and recognized "left lung failure," due to chronic adhesive lower-lobe pathology—"residual lung abscess." September, a pneumonitis; my associates diagnosed tuberculosis. She recovered, and is well and at duty, is well nourished, and sputums are all "negative."

⁂

Case 3.—I knew what was the matter with this 60-year-old cachectic man, an ex-soldier, when I saw him in consultation at the National Veterans' Hospital: "Malignancy of transverse colon with metastases to the right lung." But at autopsy the lung tumor was found to be a laminated aneurysm!

3780 Wilshire Boulevard.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

CARCINOMA OF THE PROSTATE

PATHOLOGY AND PROGNOSIS

A. J. Scholl, M. D. (523 West Sixth Street, Los Angeles).—Pathologically and clinically, there are two types of prostatic cancers, with, of course, intermediate stages. The first is the more common type, and its degree of malignancy is lower than that of the second type. The structure is made up of cells and glands, and retains the normal or glandular structure. The cells are partly differentiated, fairly regular in size and shape, and retain the long, tufted end projecting into the glandular lumen, which is the most significant feature of prostatic epithelium. The nuclei are round, relatively larger than the nuclei found in normal or hypertrophied glands, and contain the distinct nuclei which are so prominent in undifferentiated cells. Clinically, these prostates are large, nodular, stony, and produce the symptoms of obstruction first calling attention to their presence. The second type of cancer is often confused with lymphocytic infiltration. The malignant cells that have migrated into the stroma often show a streaked or etched-out appearance, in contrast to the clumped, localized disposition of lymphocytic infiltration. The cells in such glands, either from morphologic or mechanical influences, have lost their original structure; they do not conform to the usual type, but vary in size and arrangement. These may comprise great masses or extending wedges of tightly packed cells, containing large, deeply staining nuclei. In other cases, the cells may be loosely arranged, separated, and supported by a small amount of connective tissue. In prostatic carcinomas of Type 2, in which there is an excess of fibrous tissue, the cells may have disappeared completely, or may be pressed into bizarre lines and streaks; and often they are recognized only on account of the deeply staining nuclear fragments which persist. If there is glandular formation, the acini are atypical and the cells are flat, grouped together irregularly, and they contain nuclei which are, relatively, much larger than those found in non-malignant cells. Clinically, the prostates of this type are small, fibrous, and firmly fixed. They are extremely malignant, metastasize readily, and are often unrecognized, since paralysis may occur as a result of the metastasis before the glands have reached sufficient size to produce urinary symptoms. Their small size often leads to the erroneous opinion that the patients are good surgical risks, and to operations with unfavorable results. In 100 out of the 146 patients of a series reported by Judd, Bumpus and Scholl from the Mayo Clinic, it was possible to correlate the histologic findings with the postoperative course. Forty-four prostates were of Type 1, and fifty-six were of Type 2. Eleven patients with prostatic cancers of Type 1 lived more than three years; twenty-two are still alive, one for the past six years, two for five years, four for four years, three for three years, six for two years, and six for one year. Sixteen of the patients with prostatic cancers of Type 2 lived two years, seven lived three years, and only one lived more than three years. Three patients are still alive, one surviving for three years and two for one year after operation. It seems evident, therefore, that in cases of cancer of the prostate, the degree of malignancy, as demonstrated microscopically at least partially, determines the prognosis, and that when the disease has advanced sufficiently to be recognized clinically, the possibility of surgical cure is diminished.

* * *

EARLY SYMPTOMS AND DIAGNOSIS

Nathan G. Hale, M. D. (1127 Eleventh Street, Sacramento).—The specialist, in reviewing his referred cases of carcinoma of the prostate, will find that symptoms suspicious of malignancy have been present from one to three years. Therefore, every effort should be made to place in the hands of those who first see these cases all possible aids in early diagnosis.

In view of the fact that the symptoms of carcinoma and benign hypertrophy are sometimes confusingly similar, and that a good proportion of hypertrophies are associated with malignancy, an accurate estimate of the time the cancer first began to invade the prostate is uncertain.

The symptoms of cancer of the prostate are as obscure as are the symptoms of cancer in general. However, the so-called "cancer age" for the prostatic type is not of as great variation as that of cancer in general, and suspicion should be aroused when any patient complains of urinary disturbance between the ages of fifty and seventy, and more particularly between the ages of sixty and seventy.

Detail of Symptoms.—Frequency of urination is the most common symptom, that is, voiding more than once a night and more than four times during the day. When there is no associated hypertrophy of the prostate, and the bladder seems to be completely emptied, there is often noted irritation of the deep urethra and pain in the penis during urination. Slight difficulty associated with urgency in voiding deserves careful investigation.

Pain, usually the dull aching or rheumatic type referable to the sacroiliac region, penis, perineum, thighs or inguinal region, or suprapubically, is not uncommon, and is often an early symptom. One is not unaccustomed to seeing a case with few urinary symptoms and few referred pains having an extensive metastasis.

Gradual diminution of strength and loss of weight, associated with the other threads of evidence pointing to a prostatic carcinoma, are important but unfortunately do not occur early. A stricture which develops during the carcinoma age and is treated with slight improvement, should be looked upon as a possible early carcinomatous prostate.

Prostatitis, treated without response in a patient of the cancer age with no venereal history, should be looked upon with suspicion.

Coitus is occasionally impaired to a greater extent than is indicated by age. Ejaculations are often painful.

In summarizing, early symptoms may be tabulated as follows:

Carcinoma without associated hypertrophy:

1. Frequency of urination.
2. Difficulty in urination.
3. Urgency.
4. Pain in penis during urination.

Carcinoma with benign hypertrophy:

1. Increased difficulty in urination.
2. Less urgency.
3. Occasional retention of urine.

Carcinoma with chronic prostatitis:

1. Frequency of urination.
2. Irritation of deep urethra.

Diagnosis.—Carcinoma of the prostate with metastases does occur with few, if any symptoms; but this is not the rule, and our problem is to make as early a diagnosis as possible. It is believed by the writer that the existence of carcinoma would be more often discovered earlier if some method could be devised to popularize the introduction of the gloved finger into the rectum. By such a method, intelligently used, more cases would be diagnosed early. Many of the x-ray findings of metastases would not be such a shock to the nervous systems of the group of busy practitioners, who depend largely upon mechanical diagnostic aids in their work. With metastasis already present, there is no hope. With early diagnosis, there is always hope and not infrequently a cure.

Digital Examination.—On rectal examination, the normal prostate is smooth and elastic. On slow, careful, firm pressure no areas or small nodules of induration will be noted. The median furrow will not be indurated. With a sound in the urethra, and the finger in the rectum the membranous urethra will not be thickened. The lateral borders will be free of irregularities. If there is any variation from the above, carcinoma must be suspected.

According to Marion, whenever, in a case of hypertrophy of the prostate, the rectal touch reveals large bosselated and painful seminal vesicles that do not empty on stripping, one is justified in suspecting a possible malignant degeneration of the prostatic lesion.

The posterior or rectal surface of the prostate fortunately is that portion usually first involved in carcinoma. During the cancer age, when more than usual pain, associated with a noticeable constriction of the posterior urethra, is caused by the passing of a sound, malignancy should be suspected. Therefore, most valuable early information is obtained by digital examination.

To the brief résumé of the above cardinal findings in early diagnosis may be added a maze of other palpable aids, as the disease progresses. No better term could be used for the outstanding characteristic than "stony hardness." This may involve the entire prostatic area, extend into the region of the seminal vesicles, and occasionally break through the posterior fascia. Pelvic glands may be palpated. In fact, a museum of carcinoma does occasionally present itself.

Summary.—Therefore, one may conclude that symptoms are valuable as a diagnostic aid, but not conclusive, and that digital examination with the finger in strategic position is feasible, tangible and valuable, and of infinitely great and far-reaching value to the profession and the public.

* * *

TREATMENT

Lionel P. Player, M. D. (384 Post Street, San Francisco).—An analysis of the literature devoted to carcinoma of the urinary tract shows that of the total number of such cases, 57 per cent occur in the prostate gland. Twenty-five per cent of all men past the age of fifty have prostatism, and of these, one-fifth have carcinoma of the prostate. The Bureau of Census report for 1932 states that 5,438 deaths were due to malignant tumors of the prostate gland, approximately a 3 per cent increase over the year 1930. Reports indicate that only from 2 to 5 per cent of these malignancies are confined within the capsule of the prostate, that from 30 to 50 per cent have bone metastases, and that at least 10 per cent show lymphatic involvement. In view of these significant figures, it is not surprising that any discussion of the treatment of prostatic neoplasm is productive of much difference of opinion.

In deciding upon the type of treatment, several factors must be considered, among which might be mentioned: the difficulty of early diagnosis, the presence or absence of metastases, previous treatment, and whether or not there is obstruction of the bladder neck. Most writers agree that, in the early stages, the symptoms of prostatic cancer are silent, that growth and metastases are slow, but that infiltration is rapid.

Clinically, we may divide our cases into two groups, according to the physical findings.

Group One: Those apparently early cases where the cancer is located within the capsule of the prostate, with areas of marked induration (stony hardness) and fixation of the gland.

Group Two: The late cases with infiltration of the contiguous structures, with or without metastases and urinary symptoms.

In Group One, the stony hardness and fixation can be palpated rectally, and in addition evidence of the fixed prostate may be seen on cysto-urethroscopic examination. Where there is infiltration of the prostate and the adjoining structures, there is little, if any dilatation observed on filling the posterior urethra with water. Radical surgery is unquestionably the method of choice in the treatment of this group, as it offers the only opportunity of permanent cure. X-ray therapy, according to the method of Schmidt, Grauer and Jenkinson or other accepted methods, should precede operation, in order to block the radiosensitive cells of the cancerous prostate, and the nodes into which the lymphatics of the prostate drain. The importance of this procedure can be realized when one reviews the lymphatic systems which drain the prostate. The three groups are:

First, the lateral chain of lymphatics, which enter the nodes about the external iliac artery.

Second, the central group, which drains the seminal vesicles along with the prostate, and enters the nodes near the bifurcation of the aorta.

Third, the posterior group, which enters the presacral nodes near the hypogastric artery.

It is through these three chains that the primary metastasis occurs, although the secondary bone metastasis is blood-borne. It should be emphasized that the handling of the prostate during operation may cause a discharge of cancer cells into the blood stream with resultant metastases, and that, therefore, the use of the x-ray should precede surgery.

In Group Two, or those cases without urinary symptoms, and with negative x-ray findings in which there is an infiltration of the immediate contiguous structures, the treatment should be the same as Group One, with the addition of radium implants, seeds, or needles; these being inserted into the infiltrated areas where excision is contraindicated or impossible. Those cases with urinary obstruction should be treated by common sense, practical procedures alone, these being methods directed toward the relief of obstruction and the comfort of the patient. Those cases having metastasis and urinary obstruction may be treated by the following methods:

1. Partial perineal prostatectomy, with radium implantation into the remaining portion of the gland.

2. Perineal exposure of the prostate, with the implantation of radium under direct vision into the gland and invaded contiguous structures.

3. Suprapubic exposures of the prostate through a cystotomy opening, and partial removal of the gland and radium implantations according to the Ferguson Technique.

4. Transurethral resection of the obstruction, combined with suprapubic cystotomy and radium implantation.

5. Transurethral resection of the obstruction and deep irradiation.

For those cases in Group Two in which any operative interference is contraindicated, the following pálliative measures may be used:

Radium implantations, through the cystoscope and deep irradiation.

Deep irradiation of the gland and areas of metastasis, with a retained urethral catheter or suprapubic permanent drain.

The deciding factor in the selection of any method for the treatment of cases in Group Two is usually the condition of the patient, and some cases may even need implantation of the ureters into the bowel, or to the skin where infiltration has extended into the bladder. Most writers consider the cases in Group Two inoperable, but in the last year or two, I have been able to keep patients comfortable by the use of preoperative, deep x-ray therapy and transurethral resection. The advantage of this method lies in the fact that resection can be repeated at frequent intervals with little risk to the patient, provided the bleeding points are properly coagulated. I have found that the main value of deep x-ray therapy in these patients is its relief of pain, with possibly some value in minimizing the chances of hemorrhage. Radiosensitivity is in proportion to the preponderance of cellular elements over fibrosis; thus a growth may be retarded or its size diminished by irradiation.

The importance of rectal examinations in patients over the age of fifty is emphasized in order that early diagnosis may be made, and the patient given his greatest chance for cure. Cysto-urethroscopic studies should always supplement suspicious rectal findings.

Recent Trends in Obstetric Analgesia.—Based on the statements of seventy-eight of the leading obstetricians of the country, Hunt observed that: (1) There is a great increase in scientific interest in the subject of obstetric analgesia on the part of the profession. (2) Numerous drugs in various combinations are being used in an attempt to meet the requirements under various conditions. (3) The ideal obstetric analgesia has not yet been perfected. (4) No routine method can be used in all cases, and there is no method that does not possess dangers for the mother and child unless handled with great care and intelligence. (5) The best results are obtained by being familiar with more than one method and individualizing the patient. Only large experience with various drugs will prepare the obstetrican to administer them skilfully. (6) The use of any method entails a greater expenditure of time and greater responsibility on the part of the obstetrician. (7) There is a distinct tendency away from a complete twilight sleep as well as a complete Gwathmey technique. Twilight sleep should be employed in well-equipped hospitals by those skilled in its use. The Gwathmey method is adaptable for use in homes by practitioners. (8) There seems to be an increase in the use of scopolamin combined with various methods to increase amnesia. (9) Parts of various methods are being combined. (10) There is a great increase in the use of various barbiturates and a decrease in the use of morphin and its derivatives. Barbiturates can be given earlier in labor than any other drug, with less effect on the baby. (11) The most widely used and most satisfactory barbiturate in obstetrics is pentobarbital sodium. Its combination with rectal ether-oil after the method of Irving and others enhances its action and counteracts its tendency to cause excitability. (12) Rectal ether-oil is being used extensively in combination with the barbiturates and other drugs. (13) Serious attempts are being made to find a drug that will combine the favorable features of the barbiturates and yet be free from their tendency to cause excitement.—*Northwest Medicine.*

GUEST SPEAKERS AT THE SIXTY-FIFTH ANNUAL SESSION CALIFORNIA MEDICAL ASSOCIATION

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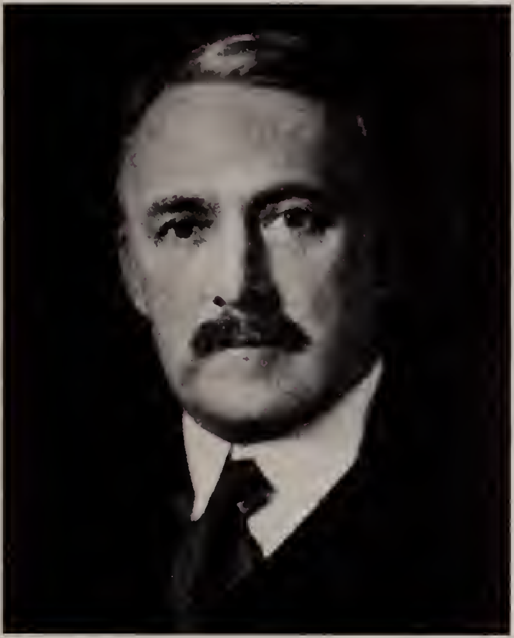

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MAY 25–28, 1936

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George G. Reinle (Chairman), Oakland	1938

Committee on Medical Economics

William R. Molony, Sr., Los Angeles	1936
Willard Stone, Pasadena	1937
John H. Graves (Chairman), San Francisco	1938

Committee on Medical Education and Medical Institutions

Loren R. Chandler (Chairman), San Francisco	1936
John B. Doyle, Los Angeles	1937
B. O. Raulston, Los Angeles	1938

Committee on Membership and Organization

Dewey R. Powell, Stockton	1936
Thomas H. McGavack, San Francisco	1937
E. Vincent Askey (Chairman), Los Angeles	1938
The Secretary	Ex officio

Committee on Postgraduate Activities

F. F. Gundrum, Sacramento	1936
John C. Ruddock, Los Angeles	1937
Clarence G. Toland (Chairman), Los Angeles	1938
The Secretary	Ex officio

Committee on Publications

Oscar Reiss, Los Angeles	1936
Percy T. Magan (Chairman), Los Angeles	1937
Ruggles A. Cushman, Talmage	1938
The Secretary	Ex officio
The Editor	Ex officio

Committee on Public Policy and Legislation

Fred R. De Lappe, Modesto	1936
E. T. Remmen, Glendale	1937
Junius B. Harris (Chairman), Sacramento	1938
The President	Ex officio
The President-Elect	Ex officio

Committee on Scientific Work

F. M. Pottenger, Monrovia	1936
Lemuel P. Adams, Oakland	1937
J. Homer Woolsey, Woodland	1938
John C. Ruddock, Secretary of Section on General Medicine	Ex officio
H. Glenn Bell, Secretary of Section on General Surgery	Ex officio
Frederick C. Warnshuis (Chairman)	Ex officio

Committee on Public Relations

The Committee on Public Relations consists of the chairmen of the following standing committees and of certain general officers of the Association, who serve ex officio. The chairman of the committee is Dr. Charles

A. Dukes, the secretary is Dr. Frederick C. Warnshuis. The director of the Department of Public Relations is Dr. Frederick C. Warnshuis.
Fred B. Clarke, Chairman, Committee on Health and Public Instruction.
Daniel Crosby, Chairman, Committee on Hospitals, Dispensaries, Clinics.
Morton R. Gibbons, Chairman, Committee on Industrial Practice.
E. Vincent Askey, Chairman, Committee on Membership and Organization.
John H. Graves, Chairman, Committee on Medical Economics.
Junius B. Harris, Chairman, Committee on Public Policy and Legislation.
Charles A. Dukes, Chairman, Cancer Commission.
Robert A. Peers, President of the California Medical Association.
Edward M. Pallette, President-Elect.
Frederick C. Warnshuis, Secretary-Treasurer.

Communications for the Public Relations Department should be addressed to the director, Dr. Frederick C. Warnshuis, Room 2004, 450 Sutter Street, San Francisco.

Cancer Commission

Harold Brunn, San Francisco	1936
Henry J. Ullmann, Santa Barbara	1936
Clarence G. Toland, Los Angeles	1936
Charles A. Dukes (Chairman), Oakland	1937
Lyell C. Kinney (Vice-Chairman), San Diego	1937
Alson R. Kilgore (Secretary), San Francisco	1937
Orville Meland (Secretary for Southern Section), Los Angeles	1938
A. Herman Zeiler, Los Angeles	1938
Gertrude Moore, Oakland	1938

Communications for the Cancer Commission should be addressed to the secretary, A. R. Kilgore, M. D., Room 2004, 450 Sutter Street, San Francisco.

SPECIAL COMMITTEES

Committee on Arrangements—Coronado Annual Session

C. O. Tanner (Chairman), San Diego
Harold D. Barnard, Los Angeles
Ralph Kaysen, San Diego
R. C. Lounsberry, San Diego
C. V. Bernardini, San Diego

Committee on Disciplinary Procedures

W. W. Roblee (Chairman)	Riverside
L. A. Packard	Bakersfield
Oscar Reiss	Los Angeles
C. Kelly Canelo	San Jose
E. Vincent Askey	Los Angeles

Committee of Five

William R. Molony (Chairman)	Los Angeles
Harry H. Wilson (Secretary)	Los Angeles
Alson R. Kilgore	San Francisco
Robert A. Peers	Colfax
Rodney A. Yoell	San Francisco

Committee on Qualifying Certificate (Basic Science) Act

George H. Kress, General Chairman
Morton R. Gibbons, Chairman (for Bay Region)
Percy T. Magan, Chairman (for Southern California)
Junius B. Harris, Chairman (for Remainder of State)

Committee on Maternal Welfare

T. Henshaw Kelly	San Francisco
Lyle G. McNeile	Los Angeles
Ralph J. Thompson	Los Angeles
T. Floyd Bell	Oakland
Hans F. Schluter	Sacramento

Committee on Tax-Supported Hospitals and Medical Care

Axcel E. Anderson (Chairman)	Fresno
Louis A. Packard	Bakersfield
Earl E. Moody	Los Angeles

REGISTRATION INFORMATION

Registration and Information.—The registration and information desk is located in the lobby, Coronado Hotel. All persons attending the convention, whether members or not, are requested to register immediately on arrival. Beginning Monday, May 25, registration secretaries will be on duty daily from 9 a. m. until 5 p. m.

Programs and "Pre-Convention Bulletin."—The registration clerks will give to every member a copy of the program. The "Pre-Convention Bulletin" will be printed in the May issue of CALIFORNIA AND WESTERN MEDICINE. Delegates and alternates are especially requested to read the reports of officers and committees.

Guests and Visitors.—All guests and visitors are requested to register. All general meetings and scientific meetings are open to visitors and guests.

Badges.—Four kinds of badges will be issued by the registration bureau:

1. *Members.*—Only active, associate, retired or honorary members of the California Medical Association will be issued the usual membership badge.
2. *Guests.*—A guest badge will be issued to all fraternal delegates and visiting physicians who are attending the 1936 session.
3. *Delegates and Alternates.*—The usual official badge for each delegate and alternate is provided for this purpose, and will be issued only to one authorized to wear it.
4. *Officers.*—An official badge is provided for all officers and members of the Council.

Suggestions and Constructive Criticism.—The officers and committees have tried to do everything possible to make the session a success. Suggestions and constructive criticism calculated to make future sessions more useful will be welcomed by any of the officers. Complaints of whatever character should be promptly made at the registration desk, where they will receive attention.

Announcements

Please register on arrival and secure program and special announcements. Registration Bureau, Coronado Hotel.

Delegates will please file credentials with committee at 7:30 p. m., Monday, May 25.

Secure tickets for President's Dinner at Registration Bureau. Dinner will be in Coronado Hotel dining room.

Please note meeting time of sections. Chairmen will be prompt in opening section meetings.

Commercial exhibitors cordially invite all members to visit their exhibits.

Past President's Breakfast, 7:30 a. m., Tuesday, May 26.

Council will meet at call of the chairman.

COMMERCIAL EXHIBITS

Aloe Company, A. S., 932 South Hill Street, Los Angeles. Booth No. 11.
Ayerst, McKenna & Harrison, Ltd., Rouses Point, New York. Booth No. 12.
Bard-Parker Company, Inc., Danbury, Connecticut. Booth No. 10.
Baxter, Inc., Don, 1505 Gardena Avenue, Glendale. Booth No. 9.
Bilhuber-Knoll Corp., 154 Ogden Avenue, Jersey City, New Jersey. Booth No. 26.
Certified Laboratory Products, Ltd., 1379 Folsom Street, San Francisco. Booth No. 21.
Coca-Cola Company, Atlanta, Georgia. Booth No. 20.
Cutter Laboratory, Berkeley. Booth No. 16.
Gerber Products Company, Fremont, Michigan. Booth No. 3.
Golden State Company, Ltd., 425 Battery Street, San Francisco. Booth No. 13.
Heinz Company, H. J., Pittsburgh, Pennsylvania. Booth No. 34.
Lea & Febiger, 600 South Washington Square, Philadelphia, Pennsylvania. Booth No. 22.
Lepel High Frequency Laboratories, 39 West Sixtieth Street, New York. Booth No. 23.
Libby, McNeill & Libby, Chicago. Booth No. 28.
Mead Johnson & Company, Evansville, Indiana. Booth No. 27.
Medical Protective Company, Wheaton, Illinois. Booth No. 24.
Merck & Company, Inc., Rahway, New Jersey. Booth No. 31.
Morris & Company, Ltd., Philip, 119 Fifth Avenue, New York. Booth No. 15.
Petrolagar Laboratories, 8134 McCormick Boulevard, Chicago. Booth No. 14.
Physicians' Supply Company, 1131 Fourth Street, San Diego. Booths 5 and 6.
Rhythm Foundation, Russ Building, San Francisco. Booth No. 32.
Scherer Company, R. L., 736 South Flower Street, Los Angeles. Booths Nos. 5 and 6.
S. M. A. West Coast Company, 4614 Prospect Avenue, Cleveland, Ohio. Booth No. 30.
Spicer & Company, 920 East Broadway, Glendale. Booth No. 4.
Stacey, Inc., J. W., 870 Market Street, San Francisco. Booths Nos. 1 and 2.
Western Surgical Supply Company, Ltd., 1926 Wilshire Boulevard, Los Angeles. Booth No. 7.
Zweegman School for Medical Secretaries, 450 Sutter Street, San Francisco. Booth No. 25.

MEMBERS OF HOUSE OF DELEGATES—33rd ANNUAL SESSION

DELEGATES EX OFFICIO (21)

Robert A. Peers, Colfax	President
Edward M. Pallette, Los Angeles	President-Elect
Frederick C. Warnshuis, San Francisco	Secretary-Treasurer
William W. Roblee, Riverside	Speaker of the House of Delegates
John H. Graves, San Francisco	Vice-Speaker of the House of Delegates
George H. Kress, Los Angeles	Editor
C. L. Emmons, Riverside (1938)	Councilor 1st District
Carl R. Howson, Los Angeles (1936)	Councilor 2nd District
Henry J. Ullmann, Santa Barbara (1937)	Councilor 3rd District
Axcel E. Anderson, Fresno (1938)	Councilor 4th District
Alfred L. Phillips, Santa Cruz (1936)	Councilor 5th District
Karl L. Schaupp, San Francisco (1937)	Councilor 6th District
Oliver D. Hamlin, Oakland (1938)	Councilor 7th District
C. E. Schoff, Sacramento (1936)	Councilor 8th District
Henry S. Rogers, Petaluma (1937)	Councilor 9th District
Harry H. Wilson, Los Angeles (1938)	Councilor-at-Large
C. O. Tanner, San Diego (1936)	Councilor-at-Large
William H. Kiger, Los Angeles (1937)	Councilor-at-Large
Morton R. Gibbons, San Francisco (1938)	Councilor-at-Large
T. Henshaw Kelly, San Francisco (1936)	Councilor-at-Large
Junius B. Harris, Sacramento (1937)	Councilor-at-Large

ELECTED DELEGATES (123)

Delegates	*Alternates*
Alameda County (10)	
L. P. Adams	Dorothy M. Allen
Leonard B. Barnard	W. G. Donald
Daniel Crosby	C. B. Fowler
John A. Dougherty	Charles C. Hall
C. A. Dukes	W. F. Holcomb
E. N. Ewer	Lloyd E. Kindall
T. C. Lawson	Jefferson Larkey
Roy F. Nelson	Robert S. Leet
G. G. Reinle	C. J. Lunsford
Hobart Rogers	Robert S. Peers
Butte County (1)	
J. O. Chiapella	N. T. Enloe
Contra Costa County (1)	
Solomon N. Weil	William S. Lucas
Fresno County (3)	
G. W. Walker	R. W. Dahlgren
H. A. Randel	K. D. Luechauer
N. J. Dau	E. R. Scarboro
Humboldt County (1)	
Lane Falk	Wilson Stegeman
Imperial County (1)	
Lewis C. House	Philip Hodgkin
Kern County (1)	
Louis A. Packard	F. J. Gundry
Kings County (1)	
E. C. Foster	W. F. Chamlee
Lassen-Plumas-Modoc Counties (1)	
Fred J. Davis	G. S. Martin
Los Angeles County (40)	
E. Vincent Askey	Walter A. Bayley
E. M. Burns	Frank J. Breslin
George Dock	E. L. Commons
Leland W. Ellis	John W. Crossan
Ralph B. Eusden	Egerton L. Crispin
Orrie E. Ghrist	William H. Daniel
W. V. Chalmers-Francis	Philip S. Doane
Lowell S. Goin	John B. Doyle
L. L. Henninger	John D. Gillis
George D. Maner	Bernard J. Hanley
Orville N. Meland	Louis Josephs
J. W. Nevius	A. A. Kutzmann
Sterling N. Pierce	W. P. Kroger
E. T. Remmen	Samuel S. Mathews
John C. Ruddock	W. A. Morrison
Carl F. Rusche	F. M. Pottenger
Raymond A. Sands	H. E. Schiffbauer
F. C. Swearingen	Willard J. Stone
Arthur R. Timme	A. H. Zeiler
E. Richmond Ware	Eliot Alden
Harold Dewey Barnard	L. A. Alesen
John V. Barrow	C. Max Anderson
Fred B. Clarke	A. Elmer Belt
William Duffield	F. H. Brandt
Walter L. Huggins	Harry V. Brown
E. Eric Larson	Martin G. Carter
Percy T. Magan	Kenneth S. Davis
William R. Molony	Edward T. Dillon
Thomas Chalmers Myers	Albert L. Hill
John P. Nuttall	W. J. Lakey
Francis M. Pottenger	Francis M. McKeever
James F. Percy	Lyle G. McNeile
Robert E. Ramsay	Carl L. Mulfinger
Oscar Reiss	William H. Olds
Harlan Shoemaker	H. A. Putnam
Philip H. Stephens	B. O. Raulston
Charles T. Sturgeon	John W. Shuman
Raymond G. Taylor	Packard Thurber
Clarence G. Toland	Robert A. Walker
Walter F. Wessels	Nelson A. Young

Delegates	*Alternates*
Marin County (1)	
Carl W. Clark	R. M. Furlong
Mendocino-Lake Counties (1)	
R. A. Cushman	Raymond Babcock
Merced County (1)	
Hartley G. Dewey	Fred O. Lien
Monterey County (1)	
Mast Wolfson	J. H. McPharlin
Napa County (1)	
Allen K. McGrath	George I. Dawson
Orange County (3)	
D. R. Ball	F. H. Gobar
G. W. Olson	R. P. Yeagle
H. G. Huffman	M. W. Hollingsworth
Placer County (1)	
Lucas W. Empey	Mildred E. Thoren
Riverside County (2)	
G. Wayland Coon	N. K. Bear
Bon O. Adams	H. S. Faris
Sacramento County (3)	
Oscar F. Johnson	Dave F. Dozier
Nathan G. Hale	Paul W. Christman
F. N. Scatena	Orrin S. Cook
San Benito County (1)	
J. M. O'Donnell	E. C. Sheldon
San Bernardino County (3)	
Walter Pritchard	Carl M. Hadley
H. M. Walton	Philip W. Lawler
H. G. Gentry	A. L. Weber
San Diego County (5)	
Fraser L. Macpherson	George D. Huff
Martha A. Welpton	James F. Churchill
W. H. Barrow	W. H. Geistweit, Jr.
Elmo G. Crabtree	C. R. Lounsberry
S. J. McClendon	W. M. Alberty
San Francisco County (17)	
Rea E. Ashley	George H. Becker
Dorothy W. Atkinson	H. Glenn Bell
Elbridge J. Best	LeRoy Brooks
Zera E. Bolin	A. Lincoln Brown
Edwin L. Bruck	Howard A. Brown
Loren R. Chandler	William A. Carroll
G. Dan Delprat	Donald A. Carson
J. C. Geiger	Garnett Cheney
Philip K. Gilman	John W. Cline
George N. Hosford	Rudolph L. Dresel
Irving S. Ingber	Ernst Gehrels
Alson R. Kilgore	Thomas H. McGavack
Mary Jones Mentzer	Frederick L. Reichert
Stanley H. Mentzer	John J. Sampson
George Warren Pierce	Roland P. Seitz
Robert S. Stone	David A. Wood
Wilber F. Swett	Rodney A. Yoell
San Joaquin County (2)	
D. R. Powell	T. C. O'Connor
C. A. Broaddus	M. H. Smyth
San Luis Obispo County (1)	
C. J. Teass	D. A. Crew
San Mateo County (1)	
J. Garwood Bridgman	Hartzell Ray
Santa Barbara County (3)	
Rodney Atsatt	P. A. Gray
Hugh H. Freidell	H. E. Henderson
Richard Evans	W. H. Eaton
Santa Clara County (4)	
C. M. Burchfiel	James P. Lovely
C. Kelly Canelo	George L. Barry
R. S. Kneeshaw	John H. Shephard
Russell V. Lee	Merlin T. R. Maynard
Santa Cruz County (1)	
Stanley W. Dowling	E. H. Eiskamp
Shasta County (1)	
F. H. Olberg	G. Leslie Kay
Siskiyou County (1)	
V. W. Hart	C. C. Dickinson
Solano County (1)	
John W. Green	Warren C. Jenney
Sonoma County (2)	
Paul T. Quarry	Carol B. Andrews
F. O. Butler	Mark L. Lewis
Stanislaus County (1)	
Donald L. Robertson	R. S. Hiatt
Tehama County (1)	
R. C. Frey	F. J. Bailey
Tulare County (1)	
Ray W. Rosson	Karl F. Weiss
Ventura County (1)	
Grundy C. Coffey	Arlo A. Morrison
Yolo-Colusa-Glenn Counties (1)	
C. A. Poage	Tom H. Brown
Yuba-Sutter Counties (1)	
R. Lucien Hamilton	T. E. Larner

DAILY SCHEDULE

Sunday, May 24

9:00 a. m. to 4:30 p. m.—Clinical Pathological Conference.
2:00 p. m.—Meeting of chairmen and members of standing and special committees.
8:00 p.m.—Council meeting.*

Monday, May 25

10:00 a. m.—Opening general meeting.
2:00 p. m.—Section meetings.
7:30 p. m.—House of Delegates.

Tuesday, May 26

7:30 a. m.—Past president's breakfast.
8:30 a. m.—Section meetings.
11:15 a. m.—General meeting.
12:30 noon—Luncheon of State and County Society officers.
1:00 to 6:00 p. m.—Recreation.
7:15 p. m.—President's dinner.

Wednesday, May 27

8:30 a. m.—Section meetings.
11:15 a. m.—General meeting.
2:00 p. m.—Section meetings.
7:30 p. m.—House of Delegates.

Thursday, May 28

8:30 a. m.—Section meetings.

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* The Council meets each day during the annual session.

I—GENERAL MEETINGS

All General Meetings will be held in the Ballroom, Hotel Del Coronado

Monday, May 25, 10:00 A. M.

1. *Address of Welcome*—Benjamin F. Eager, M. D., President, San Diego County Medical Society.
2. *Address of Welcome*—Captain F. E. Porter, Commanding Officer, United States Naval Hospital, San Diego.
3. *President's Address*—Robert A. Peers, M. D., Colfax.
4. *Newer Methods in the Treatment of Pulmonary Tuberculosis*—Jacob J. Singer, M. D., Associate Professor of Clinical Medicine, Washington University School of Medicine, St. Louis.

Tuesday, May 26, 11:15 A. M.

1. *Clinico-Pathological Conference*—Conducted by P. Campbell Howard, M. D., Professor of Medicine, McGill University Faculty of Medicine, Montreal.

    This conference will present selected cases, with comments by the chairman, after the presentation of case history, laboratory work, and postmortem findings. An opportunity will be given members of the Society to ask questions pertinent to the subject.

    The following cases will be presented:
    Case 1: Laborer, age 55. Precordial Pain?
    Case 2: Female, age 40. Brain Tumor?
    Case 3: Female, age 34. Hodgkin's Disease?
    Case 4: Male, age 43. Intermittent Fever?

    Copies of clinical histories will be given to all attending this clinico-pathological conference.

Wednesday, May 27, 11:15 A. M.

1. *Sleep Disturbances in Clinical Practice.*—Franklin G. Ebaugh, M. D., Professor of Psychology, University of Colorado School of Medicine, Denver.
2. *Synergic Reaction of Hormones*—Leon Ascher, M. D., Professor of Physiology, University of Berne. (Practical application of established theories of their physiological action.)

II—HOUSE OF DELEGATES MEETINGS

33rd ANNUAL SESSION—HOTEL DEL CORONADO

Speaker, W. W. Roblee, Riverside *Vice-Speaker,* J. M. Graves, San Francisco
Secretary, Frederick C. Warnshuis, San Francisco

FIRST SESSION

Monday, May 25, 7:30 P. M.

Main Ballroom

Order of Business

1. Call to order.
2. Report of Credentials Committee.
3. Roll call.
4. Announcement by the Speaker of Reference Committees:
    - (*a*) Report of Officers, Standing and Special Committees.
    - (*b*) Credentials Committee.
    - (*c*) Resolutions, New and Miscellaneous Business.
5. Address by President Robert A. Peers.
6. Report of the Council, T. Henshaw Kelly, Chairman.
7. Report of the Auditing Committee, Karl L. Schaupp, Chairman.
8. Report of the Secretary-Treasurer, Frederick C. Warnshuis.
9. Report of the Editor, George H. Kress.
10. Report of the General Counsel, Hartley F. Peart.
11. Report of the Chairman of the Committee on Public Relations, Charles A. Dukes.
12. Report of the Chairman of the Cancer Commission, Charles A. Dukes.
13. Report of The Trustees Of The California Medical Association, T. Henshaw Kelly, President.
14. Report of Special Committees:
    - (*a*) Protective Insurance—George G. Reinle.
    - (*b*) Disciplinary Procedure—W. W. Roblee.
    - (*c*) County Hospitals—A. C. Anderson.
    - (*d*) Committee of Five—W. R. Molony.
    - (*e*) Committee on Postgraduate Work—C. G. Toland.
    - (*f*) Committee on Qualifying Certificate (Basic Science) Law.
15. Unfinished business.
16. Introduction of resolutions and new business.
    (Note: All resolutions must be presented in writing and with triplicate copies.)
17. Amendments to Constitution and By-Laws.
18. Minutes of the meeting.
19. Adjournment.

SECOND SESSION

Wednesday, May 27, 7:30 P. M.

Main Ballroom

Order of Business

1. Call to order.
2. Roll call.
3. Announcement of meeting place of 1937 annual session.
4. Election of:
    - (*a*) President-Elect.
    - (*b*) Speaker of the House of Delegates.
    - (*c*) Vice-Speaker of House of Delegates.
    - (*d*) Councilors:
        - Second District—Incumbent, Carl R. Howson, Los Angeles.
        - Fifth District—Incumbent, Alfred L. Phillips, Santa Cruz.
        - Eighth District—Incumbent, C. E. Schoff, Sacramento.
    - (*e*) Councilors-at-Large—Incumbents:
        - C. O. Tanner, San Diego.
        - T. Henshaw Kelly, San Francisco.
    - (*f*) Delegates to the American Medical Association—Incumbents:
        - C. A. Dukes, Oakland.
        - Clarence G. Toland, Los Angeles.
        - Junius B. Harris, Sacramento.
        - William R. Molony, Los Angeles.
    - (*g*) Alternate Delegates to American Medical Association—Incumbents:
        - Edward N. Ewer, Oakland.
        - Edward M. Pallette, Los Angeles.
        - John Hunt Shephard, San Jose.
        - John C. Ruddock, Los Angeles.
5. Announcement and approval of members of standing committees elected by the Council.
6. Report of Reference Committee on Report of Officers, Standing and Special Committees.
7. Report of Reference Committee on Resolutions, New and Miscellaneous Business.
8. Presentation of the President.
9. Presentation of President-Elect.
10. Minutes of the meeting.
11. Adjournment.

Table I—Time and Places of Various Meetings and Entertainment

	Monday, May 25		Tuesday, May 26		Wednesday, May 27		Thursday, May 28	
Place	**A. M.**	**P. M.**	**A. M.**	**P. M.**	**A. M.**	**P. M.**	**A. M.**	**P. M.**
Ballroom	General Meeting	Medicine	Medicine and General Meeting	ENTERTAINMENT OPEN AFTERNOON	Medicine and General Meeting	Symposium Medicine, Surgery and Radiology		
Crown Dining Room		Surgery	Surgery		Surgery		Surgery	
Casino		Obstetrics and Gynecology	Industrial Medicine and Surgery		Industrial Medicine and Surgery	Obstetrics and Gynecology	Anesthesiology	
Patio Dining Room		Pediatrics	Eye, Ear, Nose and Throat		Eye, Ear, Nose and Throat	Pediatrics	Eye, Ear, Nose and Throat	
Grill Room		Neuropsychiatry	Neuropsychiatry		Neuropsychiatry	Anesthesiology		
Bridge Room		Radiology	Urology		Radiology	Urology		
Vestibule A		Dermatology	Dermatology					
Vestibule B		Pathology	Pathology		Pathology			
Dining Room			Past-President's Breakfast, 7:30 County Secretaries' Luncheon, 12:30 p. m.	Dinner to the President				
Gold Room	Council*							

* The Council meets each day during the annual session.
San Diego Exposition, Wednesday, 2 p. m.—Lay public meeting in Open-Air Auditorium.

OTHER MEETINGS

COUNCIL MEETINGS

The Council meets each day during the annual session, hour of meetings being determined at each previous meeting.

* * *

CONFERENCE OF MEMBERS OF STANDING AND SPECIAL COMMITTEES

Sunday, May 24, 2 P. M., Main Ballroom

By Council action, this conference is arranged in order that the chairmen and members of standing and special committees may obtain a clearer insight of the problems of our Association. Following the presentation of these problems the several committees will hold committee meetings for the purpose of formulating recommendations for presentation to the House of Delegates, and to outline the committee work for the coming year.

All committee members are urged to arrange to attend this conference. It is an obligation of every member of a committee.

1. Opening Statement—T. Henshaw Kelly.
2. Purposes of Conference—George H. Kress.
3. Headquarter's Contacts—F. C. Warnshuis.
4. Standing and Special Committee Functions—Five-minute presentations by Committee Chairmen.
5. General Recommendations.
6. Committees will hold committee meetings upon adjournment.

* * *

CANCER COMMISSION PATHOLOGY CONFERENCE

Sunday, May 24, 9 A. M. to 4:30 P. M.

Zoölogical Research Hospital, Balboa Park, San Diego

Case histories, x-rays, laboratory reports, etc., will be presented and each member attending will be given microscopic slides for diagnosis, following which the pathology will be discussed by the demonstrators.

The number attending will be limited to forty, and members should register with the secretary of the Cancer Commission, 450 Sutter Street, San Francisco, and reserve places.

Each member attending is requested to bring his own microscope.

* * *

CANCER COMMISSION RADIOLOGY CONFERENCE

Sunday, May 24, 9 A. M. to 4:30 P. M.

Hotel Del Coronado, Coronado

Films of cases of unusual diagnostic interest will be presented for study and discussion by the members. Problems of radiotherapy will also be presented for group discussion.

Accommodations will be limited, and members desiring to attend should register with the secretary of the Cancer Commission, 450 Sutter Street, San Francisco.

* * *

SUGGESTIONS

Members will receive the most from their attendance if they will be guided by the following suggestions:

1. Register on arrival.
2. Note on Daily Schedule in this program the sessions and sections you desire to attend.
3. Secure your president's dinner ticket *before Tuesday noon.*
4. Visit the Commercial and Scientific exhibits at every opportunity.
5. Send your name to the Section Chairman if you wish to discuss a given paper. (Forms in back of program.)
6. Reduced admission tickets to the Exposition can be obtained at the registration desk.
7. Special seats for visitors attending sessions of the House of Delegates.
8. Watch the daily bulletin board at the registration desk.
9. Wear your badge.
10. The information desk is for your convenience.

Table II—Schematic Plan of Section Meetings

Date	Section	Place of Meeting	Papers Presented
Monday May 25 2 p. m.	General Medicine	Ball Room	1, 2, 3, 4, 5
	General Surgery	Crown Dining Room	21, 22, 23, 24, 25. 26
	Obstetrics and Gynecology	Casino	43, 44, 45, 46, 47
	Dermatology and Syphilology	Vestibule A	70, 71, 72, 73, 74, 75
	Neuropsychiatry	Grill Room	93, 94, 95, 96
	Pathology and Bacteriology	Vestibule B	105, 106, 107, 108, 109. 110
	Pediatrics	Patio Dining Room	120, 121, 122, 123, 124
	Radiology	Bridge Room	131, 132, 133, 134, 135
Tuesday May 26 8:30 a. m.	General Medicine	Ball Room	6, 7, 8, 9, 10
	General Surgery	Crown Dining Room	27, 28, 29, 30, 31
	Eye, Ear, Nose and Throat	Patio Dining Room	52, 53, 54, 55
	Dermatology and Syphilology	Vestibule A	76, 77, 78, 79, 80. 81, 82
	Industrial Medicine and Surgery	Casino	83, 84, 85, 86, 87
	Neuropsychiatry	Grill Room	97, 98, 99, 100
	Pathology and Bacteriology	Vestibule B	111, 112, 113, 114, 115
	Urology	Bridge Room	139, 140, 141, 142, 143, 144
Wednesday May 27 8:30 a. m.	General Medicine	Ball Room	11, 12, 13, 14, 15
	General Surgery	Crown Dining Room	32, 33, 34, 35, 36
	Eye, Ear, Nose and Throat	Patio Dining Room	56, 57, 58, 59
	Industrial Medicine and Surgery	Casino	88, 89, 90, 91, 92
	Neuropsychiatry	Grill Room	101, 102, 103, 104
	Pathology and Bacteriology	Vestibule B	116, 117, 118, 119
	Radiology	Bridge Room	136, 137, 138
Wednesday May 27 2 p. m.	General Medicine, General Surgery, and Radiology	Ball Room	16, 17, 18, 19, 20
	Obstetrics and Gynecology	Casino	48, 49, 50, 51
	Anesthesiology	Grill Room	64, 65, 66
	Pediatrics	Patio Dining Room	125, 126, 127, 128, 129. 130
	Urology	Bridge Room	145, 146, 147, 148, 149, 150
Thursday May 28 8:30 a. m.	General Surgery	Crown Dining Room	37, 38, 39, 40, 41, 42
	Eye, Ear, Nose and Throat	Patio Dining Room	60, 61, 62, 63
	Anesthesiology	Casino	67, 68, 69

III—SCIENTIFIC EXHIBITS

Mezzanine Floor—Hotel Del Coronado

1. *Plastic and Reconstruction Surgery*—George Warren Pierce, M. D., and Gerald Brown O'Connor, M. D., 490 Post Street, San Francisco.

This exhibit shows a group of photographs of various types of deformities with corrections by means of plastic and reconstruction surgery. Several of the cases exhibited show the different stages of the procedures. Some show cases not completed, but sufficient to demonstrate the method of problem attack.

2. *Reconstructive Plastic and Oral Surgery*—Arthur E. Smith, M. D., 1930 Wilshire Boulevard, Los Angeles.

Two hundred illuminated, transparent photographs will be exhibited. These show the preoperative condition and reconstructive surgical results of the following cases: cleft palate and lip; crushed face and jaws; corrective rhinoplasty; skin-grafting to face and neck; reconstruction of ears, eyelids, and lips; bone grafts of mandible; fractured facial and jaw bones.

3. *Cancer of the Rectum*—William H. Daniel, M. D., 1930 Wilshire Boulevard, Los Angeles.

The subject of rectal cancer will be covered by showing some statistics, by photographs, by specimens showing different types of growths, and by a motion picture which illustrates the technique of examination, biopsy, and the two chief surgical procedures. It is the endeavor to stimulate interest in this subject by calling attention to the symptomatology and the methods of examination.

4. *Cottage Hospital Fever Therapy Apparatus*—Rodney F. Atsatt, M. D., 1421 State Street, Santa Barbara.

A simple and safe apparatus for the production of fever therapy is exhibited. It has been in use for two years. Hot moist air (conditioned air) is the modality. Coarse and fine temperature control is possible. Absolute safety for patient is inherent. Suggestions as to technique are part of exhibit.

5. *Acute Perforation of Peptic Ulcer or Goiter*—Harold L. Thompson, M. D., 1930 Wilshire Boulevard, Los Angeles.

The exhibit will consist of charts, diagrams, and pathologic specimens, which illustrate salient points in the etiology, pathology, diagnosis, and results of treatment in acute perforation of peptic ulcer. The exhibit is based on my study of clinical records of five hundred cases.

6. *Some Common Corporeal Anomalies, with Technique and Results of Correction*—H. O. Bames, M. D., 1134 Roosevelt Building, Los Angeles.

This exhibit portrays some frequently encountered anomalies of corporeal development which cause physical symptoms in proportion to their size, and mental distress in proportion to their variation from the esthetic ideal. Deformity varies with position, hence each case shows in several positions: (1) The condition actually complained of. (2) Delineation of the intended correction. (3) Early postoperative intermediate condition. (4) Clinical end-result.

7. *Believe It or Nots in Urology*—Wirt B. Dakin, M. D., 802 Pacific Mutual Building, Los Angeles.

This is a collection of rare cases, selected from a large group of urologic reports, of almost unbelievable nature, and of exceptional interest to all medical men. These reports include cases of strange pathologic conditions and anomalies; unique findings and results in surgery; rare etiologic and curative factors. Several cases are beautifully illustrated with large drawings by the nationally known surgical artist, Bill Didusch of Baltimore. European urologists have commenced collecting similar material. Negotiations are now under way to include these.

8. *Anatomy, Etiology, and Treatment of Inguinal Hernia*—Leigh F. Watson, M. D., 727 West Seventh Street, Los Angeles.

   Illustrated by charts and original drawings. The general acceptance of the congenital origin of non-traumatic indirect inguinal hernia has drawn attention to the importance of the sac as the principal cause of the hernia. The changes that are developing in the treatment of inguinal hernia. The technique of the injection and operative treatment.

9. *Treatment of Scabies Individually or En Masse*—Commander Roger A. Nolan, United States Naval Hospital, San Diego.

10. *San Diego Health Department Exhibit*—Alex Lesem, M. D., 739 Fourth Avenue, San Diego.

    Exhibit of charts and working models of apparatus for prevention of water contamination.

11. *Photographic Display of Causes and Results of Automobile Accidents*—C. D. Gunn, M. D., R. J. Pickard, M. D., and F. E. Toomey, M. D., San Diego.

12. *Exhibit of Pathological Material from the United States Naval Hospital*—Doctor Adamkiewiecs, United States Naval Hospital, San Diego.

IV—ENTERTAINMENT

Tuesday, May 26

Past president's breakfast, 7:30 a. m., dining room.

State and County Society officers' luncheon, 12:30 p.m., dining room.

Tuesday afternoon has been set aside to permit members to engage in such recreation as they prefer. Golf, visit to the Exposition, tennis, visit to the Navy Hospital and naval vessels, sight-seeing trips, sailing and fishing, are some of the forms of diversion and recreation.

Golf.—The state golf tournament will be held on Tuesday afternoon at the Coronado Country Club, which is within a few minutes' ride of the hotel, upon the island.

There will be five silver loving cups, which will be presented to those who are lucky enough to win the different events as scheduled. The green fee will be $1, which all members will pay, with the exception of those belonging to the Coronado Country Club. There will be also a fifty-cent entry fee, which will be used as a sweepstake prize.

The players will be divided into three groups, with no handicap above 24. The first group will include all those with handicaps from 1 to 12, inclusive; the second group, from 13 to 18, inclusive; and the last group, from 19 to 24, inclusive.

The tournament will be an eighteen hole medal play. Players will be able to enter at the tee.

Dinner to President Robert A. Peers.—Tuesday evening, 7:15 p. m. (Tickets may be secured at the registration desk by members not registered at the Hotel Del Coronado.) Important: Because of the large registration, it will be important to obtain dinner tickets *before Tuesday noon.*

Entertainment in the ballroom, 8:30 to 9:30 p. m.

Reception and dancing in the ballroom, 9:30 to 1 a. m.

The main dining room, Hotel Del Coronado, which has a view of Glorietta and San Diego bays, the city of San Diego, and the mountains in the background.

MRS. THOMAS J. CLARK
President, Woman's Auxiliary to the
California Medical Association
1935–1936

MRS. C. KELLY CANELO
Secretary, Woman's Auxiliary to the
California Medical Association
1935–1936

V—WOMAN'S AUXILIARY

Seventh Annual Session

WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION

Headquarters at the Hotel Del Coronado, Coronado, California

Mrs. Thomas J. Clark, President
Mrs. Elliott G. Colby, Convention Chairman

Sunday, May 24

Arrival of delegates, members, and guests, greeted by delegation hostesses.

3:00-5:00 p.m.—Registration in Sun Porch.

7:30-9:30 p.m.—Registration.

Monday, May 25

8:45 a.m.—Pre-convention State Board meeting in the Coronado Yacht Club House.

9:00 a.m. to 4:00 p.m.—Registration.

10:00 a.m.—Open session of the California Medical Association. All Auxiliary members and doctors' wives are invited to attend.

12:30 p.m.—Friendship luncheon in the hotel dining room, with local hostesses presiding at each table.

2:00 p.m.—Motor trip to interesting points around San Diego, or boat trip on San Diego Bay.

9:00 p.m.—Reception and musicale in honor of Mrs. Robert A. Peers. Members of the State Board will serve on the Reception Committee.

Tuesday, May 26

9:00 a.m. to 1:00 p.m.—Registration.

9:30 a.m.—First general session of the seventh annual convention at the Yacht Club House, Mrs. Thomas J. Clark presiding.

1:30 p.m.—Trip to the Pacific International Exposition, San Diego.

3:00-4:30 p.m.—Informal tea, given by the Women's Committee of the Exposition at the House of Hospitality. Past presidents of the Woman's Auxiliary to the California Medical Association will be guests of honor.

7:15 p.m.—President's dinner and dance of the California Medical Association at Hotel Del Coronado.

Wednesday, May 27

9:00-10:00 a.m.—Registration.

9:30 a.m.—Second general session of the seventh annual convention at the Yacht Club House, Mrs. Thomas J. Clark presiding; election of officers, presentation of the membership trophy.

12:00-1:00 p.m.—Registration.

12:30 p.m.—Post-convention State Board meeting, Mrs. Andrew J. Thornton presiding.

1:30 p.m.—Al fresco luncheon at the Coronado Beach and Tennis Club, honoring Mrs. Thomas J. Clark and Mrs. Andrew J. Thornton, with Mrs. Philip Schuyler Doane presiding. Members of the State Advisory Council will be honor guests.

8:00 p.m.—Informal bridge at Hotel Del Coronado.

Thursday, May 28

Hostesses will be at the hotel all day to assist with information and plans.

WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION

COMMITTEES

Registration and Credentials

Mrs. Chester O. Tanner, Chairman
Mrs. Hiram D. Newton, Vice-Chairman

Mrs. David E. Froelich
Mrs. W. M. Alberty
Mrs. A. E. Banks
Mrs. David R. Higbee
Mrs. F. J. Ratty
Mrs. Paul Wedgewood

Supplies and Printing

Mrs. Willard H. Newman, Chairman
Mrs. E. H. Christopherson, Vice-Chairman

Mrs. J. G. Wetherill
Mrs. John F. Luten
Mrs. J. Terrell Scott

Transportation and Sightseeing

Mrs. H. S. Sumerlin, Chairman
Mrs. J. G. Wetherill, Vice-Chairman

Mrs. L. C. Kinney
Mrs. James F. Churchill

Publicity

Mrs. F. J. Lindemulder, Chairman
Mrs. J. D. MacPherson, Vice-Chairman

Mrs. Elmer Belt
Mrs. Hervey King Graham
Mrs. H. P. Newman
Mrs. Loyd Thompson

Information

Mrs. Alex M. Lesem, Chairman
Mrs. Alfred J. Cooper, Vice-Chairman

Mrs. W. W. Crawford
Mrs. W. H. Newman

Decorations and Flowers

Mrs. E. H. Crabtree, Chairman
Mrs. C. L. Stealy, Vice-Chairman

Mrs. Charles Watkins Brown
Mrs. L. A. Kennell
Mrs. H. D. Cornell
Mrs. Elma Crabtree
Mrs. Winston Crabtree
Mrs. E. Minton Fetter
Mrs. Victor Lindsay
Mrs. Clarence E. Rees

Headquarters

Mrs. Carl F. Birkenstock, Chairman
Mrs. R. O. Taylor, Vice-Chairman

Mrs. F. J. Dingeman
Mrs. R. O. Logsden
Mrs. B. E. McGovern
Mrs. F. E. Miller
Mrs. E. H. Ruediger
Mrs. Wesley Smith

Finance

Mrs. H. A. Thompson, Chairman
Mrs. M. C. Harding, Vice-Chairman

Mrs. A. E. Banks
Mrs. Emil C. Black
Mrs. Ralph Kaysen
Mrs. Andrew J. Thornton

Hostesses

Mrs. Charles E. Howard, Chairman
Mrs. Emil C. Black, Vice-Chairman

Mrs. H. F. Andrews
Mrs. J. A. Brown
Mrs. F. A. Burton
Mrs. G. M. Cunningham
Mrs. Ben F. Eager
Mrs. M. B. Graybill
Mrs. C. M. Hosmer
Mrs. Charles R. Knox
Mrs. W. H. Halsey
Mrs. Ralph Kaysen
Mrs. Otto Marsh
Mrs. S. J. McClendon
Mrs. W. D. Rolph
Mrs. Frank B. Schroeder
Mrs. R. H. Sundberg
Mrs. Andrew J. Thornton
Mrs. T. S. Whitelock, Sr.
Mrs. J. C. Elliott King

Ushers and Pages

Mrs. Ben F. Eager, Chairman
Mrs. T. S. Whitelock, Jr., Vice-Chairman

Mrs. Damon S. Corbin
Mrs. O. S. Harbaugh
Mrs. James A. May
Mrs. J. D. MacPherson
Mrs. R. H. Sundberg
Mrs. R. L. Worthington
Mrs. F. P. O'Hara
Mrs. Joseph J. O'Hara

Entertainment

Mrs. Charles W. Rees, Chairman
Mrs. H. G. Holder, Vice-Chairman
Mrs. W. M. Alberty, Chairman of Reception
Mrs. J. B. O'Neill, Chairman of the Exposition Tea for the Women's Committee
Mrs. Frank Carter, Chairman of the Exposition Tea for the Auxiliary
Mrs. H. C. Jorgenson, Luncheon Chairman

Mrs. J. B. Beardsley
Mrs. Emil C. Black
Mrs. Charles William Brown
Mrs. J. F. Blodgett
Mrs. Lloyd Myers
Mrs. R. H. Sundberg
Mrs. F. J. Ratty
Mrs. W. W. Belford
Mrs. John C. Schlappi
Mrs. J. A. Brown
Mrs. W. C. Cooke
Mrs. C. M. Hosmer
Mrs. Otto Marsh
Mrs. H. G. Merrill
Mrs. E. Emerson Bond
Mrs. Hervey King Graham
Mrs. George L. Kilgore
Mrs. R. M. Ledford
Mrs. Stephen Parowski

Emergency and Aides to General Chairman

Mrs. F. C. Russell, Chairman
Mrs. F. E. Toomey, Vice-Chairman

Mrs. C. V. Bernardini
Mrs. J. A. Brown
Mrs. O. W. Cole
Mrs. W. B. McGee
Mrs. J. C. E. Nielson
Mrs. J. G. Omelvena
Mrs. W. J. Ryan
Mrs. Stephen Parowski
Mrs. Paul Wedgewood
Mrs. John W. Wilhoit
Mrs. F. J. Walter
Mrs. A. F. Willier
Mrs. E. N. Young

A portion of the ballroom of Hotel Del Coronado, which will be used for general meetings of the convention.

Hotel Del Coronado, at Coronado Beach, California, where the 1936 Convention of the California Medical Association will be held.

SAN DIEGO—OUR CONVENTION CITY

Need one write about San Diego? Here came the Spanish discoverer to behold the Pacific Coast. Here was the first town, the first irrigation system, the first cultivated fields, the first school, the first mission in this "Plymouth of the West."

Discovery and settlement was a Spanish sequel to the conquests of Mexico. It was only fifty years after Columbus discovered America, that the navigator, Cabrillo, found this land-locked harbor, later named San Diego Bay. American succession came in 1846. Since that date history records an ever expanding development that produced the present city and environment with natural and acquired resources.

Lest we fall into the rut worn out by many Chambers of Commerce, suffice it to state: San Diego, with its modern business section and streets, hotels, theaters, and parks, extends to the members of the California Medical Association a very hospitable welcome.

* * *

Hotel Del Coronado.—Hotel Del Coronado, at Coronado, California, has for many years been one of the most famous resorts on the Pacific Coast. It has echoed romance in California for more than forty years, welcoming battle fleets, entertaining presidents, princes, international delegations, and dispensing hospitality to society.

An ideal place for a convention is this hostelry, because of its many rooms, one of the finest ballrooms in the world, a high-vaulted dining room, famous for its beauty, which will seat eight hundred persons, private dining rooms for small gatherings, and various other rooms that may be used for committee meetings, make this an ideal gathering place.

The hotel occupies some four acres and is built around a patio containing many semitropical plants and flowers. It stands between the beautiful Pacific and picturesque Glorietta Bay—on a little peninsula, down which one may drive along the Silver Strand to Mexico. The hotel and the little town of Coronado are separated from San Diego by San Diego Bay, across which the stately ferries transport both cars and passengers every ten minutes.

Equipped throughout with the most adequate and efficient automatic sprinkler system, the hotel is absolutely fireproof. It may be reached by motor, airplane, steamship or railroad lines. And, having arrived at the famous resort, one finds all sorts of things to do—golf, tennis, swimming, aquaplaning, sailing, fishing, and horseback riding, being among the favorite sports. Indoor pastimes include bridge, dancing, billiards, backgammon, pingpong, and talking pictures, of which four are shown each week.

Motoring is another delight of the resort, as roads are perfect and there are many historic places within an hour's drive from the hotel, while for the lover of nature the back country drives are delightful.

Comfort and luxury within, beauty and splendor without, await the visitor at Hotel Del Coronado.

VI—SECTION MEETINGS

Scientific Section Programs

(Numbers in parenthesis after each section indicate sequence reference numbers of papers read in each section.)

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II.—General Surgery (21-42) 317
III.—Obstetrics and Gynecology (43-51) 319
IV.—Eye, Ear, Nose and Throat (52-63) 320
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VII.—Industrial Medicine and Surgery (83-92) 323
VIII.—Neuropsychiatry (93-104) 324
IX.—Pathology and Bacteriology (105-117) 325
X.—Pediatrics (118-128) 326
XI.—Radiology (129-136) 327
XII.—Urology (137-148) 328

Rules Regarding Papers and Discussions at the Annual State Session:

Upon recommendation of the Executive Committee, the following rules regarding papers have been adopted by the Council:

1. All papers read before a section of an annual session are the property of California and Western Medicine.

2. The maximum time that may be consumed by any paper is fifteen minutes, provided that not to exceed ten minutes' latitude may be allowed invited guests at the discretion of the presiding chairman.

3. The maximum time permitted any individual to discuss a paper is four minutes. This also applies to the author in closing his discussion. No speaker may discuss more than once any one subject. The presiding officer of each section is expected to enforce these rules.

4. A copy of each and every paper presented at the state meeting must be in the hands of the chairman or secretary of the section, or in the hands of the general secretary before the paper is presented.

Each paper must be typewritten in double space. Single space and carbon copies are not acceptable.

5. All papers read at an annual session of the California Medical Association automatically become the property of the Association (By-Laws, Chapter VI, Section 4). The Committee on Publications of the official publication, California and Western Medicine, decides whether or not the paper submitted is of such nature as to be published in full in California and Western Medicine or in abstract form. (In case the latter procedure is followed, the expense of setting up the type for reprints may be borne by the Association). It is also the ruling when any section has a larger number of papers on its program than can be covered in a two-day session, that not more than the average number of papers from such section shall be printed, unless for special reasons. Manuscripts not accepted for California and Western Medicine will be returned to the authors, for submission to other medical journals, if so desired.

6. Articles are accepted for place on the program on condition that they are also contributed *solely* to California and Western Medicine. Authors desiring to publish their papers elsewhere than in the journal must make written request to the editor. Papers submitted at meetings of this Association must not have been previously submitted or printed elsewhere.

7. No paper will be accepted by the General Program Committee nor by Section Program Committees unless accompanied by a synopsis of not to exceed fifty words.

8. Papers shall not be "read by title." Papers should be original typewritten copies, double spaced, and should be handed to the section secretary after having been read.

9. No member may present more than one paper at any annual session, provided that a member may be a collaborator on more than one paper, if these papers are presented by different authors.

10. Failure on the part of an author to present a paper precludes acceptance of future papers from such author for a period of two years, unless the author explains to the satisfaction of the Executive Committee his inability to fulfill his obligations.

Numbering of Section Papers

For convenience in reference, papers are numbered in serial sequence for the entire session, instead of a separate sequence for each section.

Business Meetings of Sections

Time of business meetings and elections of officers of sections will be scheduled on section blackboards by section secretaries, and through preliminary announcements by section chairmen.

Unless otherwise announced, the business meeting of each section and the election of officers will be held immediately after the reading of the second paper on the second day's section program.

I

GENERAL MEDICINE SECTION*

Fletcher B. Taylor, M. D., *Chairman*
400 Twenty-Ninth Street, Oakland

John C. Ruddock, M. D., *Secretary*
1930 Wilshire Boulevard, Los Angeles

First Meeting—Ballroom

Monday, May 25, 2 p. m.

1. *Calcinosis, with Special Reference to Its Occurrence in Scleroderma*—Campbell P. Howard, M. D., 1487 Mackay Street, Montreal, Quebec. (By invitation.)

2. *Bromide Intoxication*—George C. Burns, M. D., 7878 Seville Avenue, Huntington Park.

   A historical review of the subject, the mechanism of intoxication, a description of the symptoms together with differential diagnosis. An analysis of twenty cases with suggestions as to treatment.

   Discussion by Clinton H. Thienes, M. D., Los Angeles; George S. Johnson, M. D., San Francisco.

3. *The Present Status of Tuberculin as a Diagnostic Factor in the Control of Tuberculosis*—Everett Morris, M. D., Wish-i-ah Sanatorium, Auberry.

   This paper calls attention to what seems to be a well-established fact, that the incidence of tuberculosis is largely due to "slowly progressive household epidemics"; that the incidence of tuberculosis may be determined by the tuberculin test, and that the control of this contagion is the prerogative of the household's family physician.

   Discussion by Gladys P. Shahovitch, M. D., Los Angeles; Harold G. Trimble, M. D., Oakland.

4. *Arthritis—A Medical Problem*—Robert Stewart Peers, M. D., 2939 Summit Street, Oakland.

   Points in medical treatment of the rheumatic syndrome, with mention of grouping for treatment, analgesics, sedimentation tests, carbohydrate metabolism, and laboratory studies. Paper based on over five hundred cases.

   Discussion by Robert T. Pottenger, M. D., Pasadena; Leonard B. Barnard, M. D., Oakland.

5. *The Management of Alcoholism*—Harry H. Wilson, M. D., 1919 Wilshire Boulevard, Los Angeles.

   The paper is based upon the thought that alcohol is only a substitute in the seeking of relief by a maladjusted personality; a routine procedure has been applied consisting of a biochemical phase wherein the patient's sense of well-being is improved and a psychological phase wherein an abbreviated psycho-analytical readjustment is attempted.

   Discussion by V. H. Podstata, M. D., San Francisco; Edward W. Twitchell, M. D., San Francisco.

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Second Meeting—Ballroom

Tuesday, May 26, 8:30 a. m.

6. *Radioscopy of the Heart*—Francis J. Rochex, M. D., 350 Post Street, San Francisco.

   The use of the roentgen ray in the diagnosis of diseases of the heart and great vessels is described. The value of the teleoroentgenographic examination is contrasted with that of orthodiagraphy and fluoroscopy. Standard criteria for determining normal heart size are discussed. It is pointed out that radioscopy has a place in the study of the cardiac patient and that it is most valuable when both the advantages and limitations of the procedure are well understood.

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* Robert B. Hope, M. D., Los Angeles, and George C. Burns, M. D., Huntington Park, are monitors for the General Medicine Section.

Discussion by William J. Kerr, M. D., San Francisco; Howard E. Ruggles, M. D., San Francisco.

7. *Present Status of Physical Examination of the Heart*—J. Guy Van Scoyoc, M. D., 510 West Sixth Street, Los Angeles.

   It is the intention of this paper to discuss in a brief way the place the physical examination of the heart now occupies, reviewing some of the abnormalities that can be diagnosed by this procedure.

   Discussion by William H. Leake, M. D., Los Angeles; John J. Sampson, M. D., San Francisco.

8. *Chairman's Address*—The Chairman, Fletcher B. Taylor, M. D., 400 Twenty-ninth Street, Oakland, will introduce the invited speaker, Chauncey D. Leake, Ph.D., University of California Medical School, San Francisco, whose subject will be *Practica Medici Moderni.*

   Pharmacologic examples of science versus art in medicine. Analogy to ethics and etiquette. Professional relationships and the function of friendship. The general practitioner and the specialist. Public and professional ideals of preventive medicine. Suggestions regarding the effective practice of preventive medicine.

9. *Social and Medical Aspects of Chronic Arthritis and Rheumatic Diseases*—David H. Kling, M. D., 1930 Wilshire Boulevard, Los Angeles.

   A survey shows the inadequacy of hospitalization and its effect on the care and conception of arthritis and rheumatic conditions. Lack of extensive knowledge of the anatomy and physiology of joints is pointed out. Studies are presented showing the value of systematic examination of joint structure and joint fluids for diagnosis and treatment.

   Discussion by D. Schuyler Pulford, M. D., Sacramento; David Ghrist, M. D., Los Angeles.

10. *The Tuberculous Cavity in Its Clinical and Public Health Aspects*—Francis M. Pottenger, M. D., Pottenger Sanitarium, Monrovia.

    Cavity is a most important feature of tuberculosis from both the standpoint of spreading the disease within the patient's own body and transmitting the disease to others. Cavity also furnishes the greatest problem in successful therapy. The necessity for physicians who advise tuberculous patients to understand these important features.

    Discussion by Chesley Bush, M. D., Oakland; Carl R. Howson, M. D., Los Angeles.

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Third Meeting—Ballroom

Wednesday, May 27, 8:30 a. m.

11. *Medical Aspects of Esophageal Disturbances*—Fred H. Kruse, M. D., 384 Post Street, San Francisco.

    Brief classification of lesions with chief characteristics of obstruction as against dysphagia. Remote effects of obstructive lesions of the esophagus. Dysphagia as a presenting symptom, its significance and importance of diagnostic analysis. "Digestive" disturbances referred to esophagus. Some special consideration of dysphagia and "indigestion" in respect to anemia, peptic esophagitis, and hiatus hernia.

    Discussion by H. Brodie Stephens, M. D., San Francisco; M. Felix Cunha, M. D., San Francisco; Harry N. Akesson, M. D., Alameda.

12. *Expert Medical Testimony in California Courts*—Harold D. Barnard, M. D., 2417 South Hope Street, Los Angeles.

    This paper calls attention to the difficulties and uncertainties associated with use of medical expert testimony. Reviews the efforts of certain doctors and lawyers in the State of California over a period of approximately thirty years to correct the abuses and absurdities which have been made possible by certain rules governing court procedure. Suggest definite plans of correction, and pleads for a better understanding and more general use of Section 1871, Code of Civil Procedure of the State of California.

    Discussion by Mr. Oscar C. Mueller, Los Angeles (by invitation); Andrew S. Lobingier M. D., Los Angeles; William L. Weber, M. D., Los Angeles.

13. *Basal Metabolism—A Determination of Zero Point*—John Martin Askey, M. D., 1930 Wilshire Boulevard, Los Angeles.

    A measure of the central tendency of the metabolism of normal persons (the zero point) is necessary for the evaluation of the normal range of basal metabolic rates. This zero point apparently varies somewhat with different climates, different population, and different techniques. The zero point of a particular standard cannot be used as the zero point of a particular population and laboratory without an experimental check. The mean basal metabolism of 110 normal individuals, based on one-day tests, was determined to act as a standard for comparison clinically. Two- to three-day tests on patients are impractical.

    Discussion by Clarence G. Toland, M. D., Los Angeles; H. Clare Shepardson, M. D., San Francisco.

14. *Evaluation of Methods for the Study of Peripheral Vascular Disturbances*—Albert H. Elliott, M. D., Cottage Hospital, Santa Barbara.

    Tests for the study of peripheral vascular disturbances may be divided into two groups: (1) Those which give information as to the degree and extent of structural changes; and (2) Those which aim to evaluate the degree of functional change and to measure the capacity of the circulatory reserve. Their technique and indications will be discussed and illustrated by case reports and lantern slides.

    Discussion by P. A. Gray, M. D., Santa Barbara; William J. Kerr, M. D., San Francisco.

15. *The Clinical Manifestations of a Dengue-like Fever Recently Observed in the San Francisco Bay District*—Garnett Cheney, M. D., 210 Post Street, San Francisco.

    Review of a group of twenty cases observed during the summers of 1934 and 1935, which were characterized by high fever of a weeks' duration, marked prostration and aching, and absence of leukocytosis. Description of common symptoms, including jaundice. Similarity to dengue fever.

    Discussion by Edward B. Shaw, M. D., San Francisco; Donald D. Lum, M. D., Alameda.

RECESS

Election of officers and business meeting.

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Fourth Meeting—Ballroom

Wednesday, May 27, 2 p. m.

SYMPOSIUM ON NON-TUBERCULOUS LESIONS OF THE CHEST

This will be a joint meeting of the following sections: Medicine, Surgery, and Radiology.

16. *Tumors and Cysts of the Lungs, Diagnosis, and Treatment*—J. J. Singer, M. D., 519 University Club Building, St. Louis, Missouri. (By invitation.)

17. *Silicosis*—Philip H. Pierson, M.D., 490 Post Street, San Francisco.

The danger of silicosis in industry is based upon (1) the amount and size of dust particles, namely, concentration; (2) complete chemical and petrographic analysis of dust; and (3) occupational history, physical examination, and proper x-ray examination of the chest.

If these factors are carried out in estimating the hazard of an industry, as well as observing and determining the liability factor in industrial cases, much of the so-called "racket" in silicosis would be avoided.

18. *Pulmonary Embolism*—E. Richmond Ware, M. D., 1930 Wilshire Boulevard, Los Angeles, and Lewis T. Bullock, M.D., 1136 West Sixth Street, Los Angeles.

The frequency of pulmonary embolism, with especial emphasis on its occurrence in medical as well as postoperative patients, is indicated. The clinical picture, differential diagnosis, with accessory laboratory diagnostic aids, is described. Finally, possible factors of etiology, means of prevention and treatment, are discussed.

19. *Intra- and Extrathoracic Problems in the Bronchiectatic Patient* — Frank S. Dolley, M. D., 427 South Arden Boulevard, Los Angeles.

The prognosis in limited and extensive involvement under medical and surgical care. Consideration of frequent complications that may be anticipated in a patient with bronchiectasis who (1) develops an apparent pneumonia; (2) develops an upper respiratory infection; (3) develops lung abscess symptoms; (4) extrathoracic surgery.

20. *Pulmonary Abscess and Gangrene*—Charles Weiss, M. D., 2200 Post Street, San Francisco.

This paper will review the present knowledge of the etiology, bacteriology, and pathogenesis of pulmonary abscess. It will include a summary of original investigations which have been conducted at the Mount Zion Hospital on the transmission of the disease to monkeys and dogs by the bronchial route.

Discussion of symposium by L. H. Garland, M. D., San Francisco; Munford Smith, M. D., Los Angeles; Roy E. Thomas, M. D., Los Angeles; Harold Brunn, M. D., San Francisco.

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II

GENERAL SURGERY SECTION*

Wayland A. Morrison, M. D., *Chairman*
1037 Pacific Mutual Building
523 West Sixth Street, Los Angeles

H. Glenn Bell, M. D., *Secretary*
University of California Hospital, San Francisco

J. M. Schmoele, M. D., *Assistant Secretary*
407 Wilshire Medical Building
1930 Wilshire Boulevard, Los Angeles

First Meeting—Crown Dining Room

Monday, May 25, 2 p. m.

21. *Clinical Consequences of Abnormal Rotation and Fusion of the Right Colon*—LeRoy Brooks, M. D., 2000 Van Ness Avenue, San Francisco.

This discussion will briefly cover the clinical consequences of abnormal rotation and failure of normal fusion of the right colon. A brief report on some seventy-odd personal cases will be given. The technique of the surgical treatment will be illustrated and the results of our follow-up will be given.

22. *Congenital Anomalies Associated with Intestinal Obstruction* — George H. Ernsberger, M. D., 276 West College Street, Covina.

The various types are discussed in detail as to anatomy, physiology, and pathology, with reference to the literature and the author's personal experience.

Eight cases are briefly presented, illustrating certain types of these anomalies. The anatomical and physiologic findings along with the symptoms are stressed rather than other less pertinent details. Lantern slides will be presented to demonstrate more clearly the verbal descriptions.

23. *Congenital Occlusion of the Intestinal Tract*—J. Homer Woolsey, M. D., Woodland Clinic, Woodland.

A paper upon the incidence, embryology, etiology, symptomatology, and treatment of this condition together with a report of a successfully operated baby who had an occlusion of the duodenum. (Lantern slides.)

Discussion of the above papers by E. Eric Larson, M. D., Los Angeles; G. D. Delprat, Jr., M. D., San Francisco; Walter A. Bayley, M.D., Los Angeles; W. T. Conley, M. D., Los Angeles; John B. deC. M. Saunders, M. B., San Francisco.

24. *New Approach to Resection of the Colonic Flexures*—Carl L. Hoag, M. D., 702 Fitzhugh Building, 384 Post Street, San Francisco.

A new pericostal-abdominal incision gives adequate exposure of the ascending and descending colon and their flexures, complete control of blood supply, access to lymphatics. It is shorter, safer, and does not weaken the abdominal wall. Indications, technique, case reports. (Lantern slides.)

Discussion by Foster K. Collins, M. D., Los Angeles; H. Glenn Bell, M. D., San Francisco.

25. *Acute Appendicitis: One Thousand Consecutive Cases*—George K. Rhodes, M. D., 430 Medico-Dental Building, 490 Post Street, San Francisco.

The paper will include modern conceptions of the surgical treatment of acute appendicitis (a study based on a personal review of one thousand consecutive cases operated on at the San Francisco Hospital). The pertinent facts of this review are given, such as those bearing on the types and time of operations, drainage, etc. The dangers of reviving delayed treatment, as expounded in the recent literature, will be stressed.

Discussion by Charles T. Sturgeon, M. D., Los Angeles; Edwin M. Taylor, M. D., Oakland.

26. *The Surgical Approach to Hypertension*—Francis M. Findlay, M. D., 1515 State Street, Santa Barbara.

Essential hypertension is defined: the etiology is still unknown. The known physiologic and pathologic changes present in the different stages of hypertension are reviewed briefly. The clinical and experimental evidence of the adrenal influence is reviewed and shown to have only a minor rôle in the production of hypertension. The operative procedures reported to date upon the sympathetic nervous system are reviewed and evaluated.

Discussion by Howard C. Naffziger, M. D., San Francisco; Carl W. Rand, M. D., Los Angeles.

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* Nelson J. Howard, M. D., San Francisco, and Robert Austin, M. D., Coronado, are monitors for the General Surgery Section.

Second Meeting—Crown Dining Room

Tuesday, May 26, 8:30 a. m.

27. *Chairman's Address*—Wayland A. Morrison, M. D., 523 West Sixth Street, Los Angeles.

28. *Positive-Negative Pressure Therapy in the Treatment of Peripheral Vascular Disorders*—M. L. Montgomery, M. D., University of California Medical School, San Francisco.

In thirty-six patients treated by gradual pressure changes (Herman-Reid), the results were excellent in cases of early acute occlusion of the femoral artery; they ranged from good to fair in claudication of the calf, good to poor in diabetics with arteriosclerosis, but were discouraging in older patients having advanced arteriosclerosis, with or without ulcers of the feet.

Discussion by John M. Schmoele, M. D., Los Angeles; William J. Kerr, M. D., San Francisco.

29. *Preoperative and Postoperative Care in the Prevention of Thrombosis and Embolism*—John H. Breyer, M. D., 701 Professional Building, 65 North Madison Avenue, Pasadena.

The object of the paper is not to contribute anything that I have particularly gained from personal experience, but to review the literature and work done on the subject and crystallize out in a practical application of the various observations made. It is most embarrassing to any surgeon to be confronted in an apparently normal case with a complication of thrombosis and embolism.

Discussion by E. Vincent Askey, M. D., Los Angeles; Harold Brunn, M. D., San Francisco.

RECESS

Election of officers and business meeting.

30. *Reconstruction of the Breast*—Howard L. Updegraff, M. D., 601 Hollywood First National Bank Building, Hollywood.

Amputation of the hypertrophied breast is often done when a less mutilating procedure would suffice. A technique allowing the complete removal of the breast content, in addition to a return to normal size, is available. The surgery is done in two stages.

Discussion by William S. Kiskadden, M. D., Los Angeles; Harry M. Blackfield, M. D., San Francisco.

31. *Cardiospasm*—H. Brodie Stephens, M. D., Fitzhugh Building, 384 Post Street, San Francisco.

The present-day conception of the causes of the condition generally known as cardiospasm will be reviewed in this article. A brief account of the principal symptoms will be presented, followed by an analysis of the follow-up studies that have been gathered from the literature and our own cases. The follow-up study will chiefly concern the results obtained with the use of the hydrostatic dilators. It is hoped that one or two operative cases can be reported.

Discussion by Joseph J. O'Hara, M. D., San Diego; Stacy R. Mettier, M. D., San Francisco; John Hunt Shephard, M. D., San Jose.

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Third Meeting—Crown Dining Room

Wednesday, May 27, 8:30 a. m.

32. *Duodenal Fistulae*—Theodore C. Lawson, M. D., 3115 Webster Street, Oakland.

The incidence, causative pathology, symptomatology of duodenal fistulae are discussed and their treatment comprehensively taken up. Several non-operative and operative methods of cure are compared and the ones most successful are gone into in detail. Case histories are given in which different methods were used, the reasons these variations were made, and the results obtained.

Discussion by Charles M. Fox, M. D., San Diego; Nelson J. Howard, M. D., San Francisco.

33. *The Surgical Management of Obstructive Jaundice*—Frederick S. Foote, M. D., 490 Post Street, San Francisco.

A critical analysis of the results obtained from operation on seventy-five patients at the San Francisco Hospital (1929-1936): 1. Diagnosis: (*a*) Stone, carcinoma, hepatitis. (*b*) Type of pain, age and duration and depth of jaundice. (*c*) Van den Bergh; Takata-ara; and Rose Bengal. (*d*) Percentage of error. (*e*) X-ray.

2. Operative results: (*a*) Cures. (*b*) Operative deaths: Shock, peritonitis, hemorrhage, liver death.

3. Reasons for mortality: (*a*) Wrong diagnosis. (*b*) Wrong time to operate. (*c*) Magnitude of operation. (*d*) Pre- and postoperative care. (*e*) Duration and depth of jaundice. (*f*) Age. (*g*) Altered coagulation.

4. Summary.

5. Conclusions.

Discussion by Thomas O. Burger, M. D., San Diego; Theodore L. Althausen, M. D., San Francisco.

34. *Internal Derangement of the Temporomandibular Joint*—Thomas F. Mullen, M. D., 450 Sutter Street, San Francisco.

The temporomandibular joint is a complicated structure which is liable to functional disorders. Changes in the meniscus and its relations to the movements of the condyle give rise to a series of disabilities comparable to those caused by derangement of the semilunar cartilages in the knee-joint. These are discussed in three groups.

Discussion by E. F. Tholen, M. D., Los Angeles; George C. Hensel, M. D., San Francisco.

35. *Prevention of Postoperative Distention—Gas Pains*—Louis E. Mahoney, M. D., 501 Professional Building, Santa Monica.

Gas pains are a most distressing postoperative complication. Proper preparation of the patient and extremely gentle operative manipulations are important.

Ordinary postoperative treatment and usual dietary regimen predispose to gas formation. Hospital liquid diet is semi-starvation and causes proliferation of putrefactive and gas-forming bacteria. Avoid liquid diet and give water and solid food at once. Give mineral oil and avoid enemata.

Result: Good appetite, no gas pains, bowel movement on the third day, very little loss of weight, and earlier return to work.

Discussion by C. J. Berne, M. D., Los Angeles; Fred H. Kruse, M. D., San Francisco.

36. *Surgical Relief of Stomach Ulcers*—Charles E. Phillips, M. D., 1919 Wilshire Boulevard, Los Angeles.

Etiologic factors in stomach ulcers. Uncomplicated gastric ulcers become a surgical problem only after careful study, and adequate medical treatment has been considered. Indications for surgery: Absolute, relative. Contraindications.

The surgical objective is to remove pathology and restore the normal continuity of the gastro-intestinal tract. Technique: Gastroduodenal excision with restoration of the continuity of the tract. The cost of efficiency in gastro-intestinal surgery. Should gastro-intestinal surgery be a specialty?

Discussion by E. Clarence Moore, M. D., Los Angeles; Asa W. Collins, M. D., San Francisco.

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Fourth Meeting—Ballroom

Wednesday, May 27, 2 p. m.

SYMPOSIUM ON NONTUBERCULOUS LESIONS OF THE CHEST

This will be a joint meeting of the following sections: Medicine, Surgery, and Radiology.

The program of this joint meeting is printed under the Fourth Meeting of the General Medicine Section. (See page 316.)

Fifth Meeting—Crown Dining Room

Thursday, May 28, 8:30 a. m.

37. *Pancreatic Surgery*—George Thomason, M. D., 317 Hollingsworth Building, 606 South Hill Street, Los Angeles.

The development of the feature of hyperinsulinism and hypoglycemia, associated usually with an adenoma of the pancreas, and the marvelously successful results which have been obtained in these cases make the subject of great interest. The advisability of removing a considerable part of the pancreas in cases of hyperinsulinism and hypoglycemia when no tumor is present should be considered.

Discussion by Walter Bayley, M. D., Los Angeles; H. Clare Shepardson, M. D., San Francisco.

38. *Pseudorecurrences of Biliary Duct Stones*—Harry K. Bonn, M. D., 607 South Olive Street, Los Angeles.

A discussion of: (*a*) The incidence of duct stones. (*b*) The surgical anatomy of the common duct, especially the many vascular anomalies related thereto. (*c*) The possibilities for vicious hemorrhage and duct injury. (*d*) Surgical measures of safety. (*e*) Mortality: Of cholecystectomy alone and of cholecystectomy plus choledochotomy.

Discussion by H. E. Schiffbauer, M. D., Los Angeles; Stanley H. Mentzer, M. D., San Francisco.

39. *Closed Method of Drainage of a Subphrenic Abscess*—H. E. Schiffbauer, M. D., 1005 Brockman Building, 520 West Seventh Street, Los Angeles.

Subphrenic abscess is nearly always the result of some purulent intraperitoneal inflammatory condition, the most frequent cause being that of a ruptured, gangrenous appendix. The operative mortality still remains high. This, in my opinion, could be reduced by the use of the closed drainage method in selected cases, which technique will be fully described.

Discussion by Verne C. Hunt, M. D., Los Angeles; Sumner Everingham, M. D., Oakland.

40. *The Experimental Basis for the Injection Treatment of Hernia*—Alfred S. White, M. D., 685 Fifteenth Avenue, San Francisco.

A brief review of the history of the injection method. A study of the reaction of tissues in experimental animals to the various solutions used in the clinical treatment by the injection method. Laboratory data to establish the safety and rationale of this procedure in human beings.

41. *The Injection Treatment of Hernia*—Franklin I. Harris, M. D., 450 Sutter Street, San Francisco.

The mechanism of inguinal hernia is reviewed. The application of experimental findings to clinical use and the principle of continuous reduction of the hernia by means of a truss are described. The indications, dangers and complications are discussed. A practical technique is described and a summary of experience with 150 cases is given.

42. *Clinical Results of the Injection Treatment of Hernia*—Frank R. Girard, M. D., 951 Medico-Dental Building, 490 Post Street, San Francisco.

Variations in technique are described. The use of various solutions is discussed. The result of a study of 150 cases is presented and compared with the results by the operative method. The value of an ambulatory method in the treatment of hernia in industrial surgery is emphasized.

Discussion of the above three papers by Clyde J. Osborne, M. D., San Diego; Clark L. Abbott, M. D., Oakland; Walter B. Coffey, M. D., San Francisco; Harold Brunn, M. D., San Francisco.

III

OBSTETRICS AND GYNECOLOGY SECTION*

H. A. Stephenson, M. D., *Chairman*
521 Medico-Dental Building, 490 Post Street
San Francisco

Donald G. Tollefson, M. D., *Vice-Chairman*
511 South Bonnie Brae, Los Angeles

R. Glenn Craig, M. D., *Secretary*
1450 Medico-Dental Building, 490 Post Street
San Francisco

First Meeting—Casino

Monday, May 25, 2 p. m.

43. *Obstetrical Analgesia—The Use of Pantopon and Scopolamin as an Adjunct to Sodium Amytal and Paraldehyd—With Observations Upon the Management of the New-born*—Joseph M. Harris, M. D., and Benjamin F. Feingold, M. D., 3875 Wilshire Boulevard, Los Angeles; A. J. Wineland, M. D., 338 South St. Andrews Place, Los Angeles; and J. Harold Cantarow, M. D., Hartford, Conn.

Concerning a method of analgesia giving 100 per cent results. Showing favorable results upon the mother and particularly the baby. The value of an intentionally induced apnea, or so-called asphyxia of the baby. Studies upon the urinary and pathologic findings of the new-born with relation to analgesia.

44. *Gynecologic Symptoms Complicating Acute Anterior Poliomyelitis*—Dwight D. Young, M. D., 918 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

In a recent survey made of one hundred female patients who have had acute anterior poliomyelitis, it was found that all show disturbances of menstruation. Dysmenorrhea is the most frequent and the most distressing symptom encountered. The survey was made among the employees of the Los Angeles County General Hospital. Over 90 per cent of this group complained of dysmenorrhea, which began soon after the onset of poliomyelitis.

45. *Missed Abortion*—J. Morris Slemons, M. D., 819 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

An infrequent, puzzling complication; on the increase perhaps, because of the attention given prenatal care and the liberal use of sedatives when abortion threatens. Anatomical studies teach that death of the embryo precedes placental disintegration. The characteristic inertia of the uterus is attributed to hormonal imbalance; excessive progestin, deficient estrin.

46. *Menorrhagia: Results of Treatment, a Follow-Up Study*—Margaret Schulze, M. D., University of California Hospital, San Francisco.

Two hundred and fifty cases of essential menorrhagia, ranging in age from fourteen to sixty years, were followed from two to twenty years. Treatment was varied, but the majority received radium in varying dosage. Influence upon the menorrhagia, future pregnancies, weight changes, menopausal symptoms, and other sequelae, are considered.

47. *Traumatic Rupture of Uterus in Advanced Pregnancy*—E. M. Lazard, M. D., 1930 Wilshire Boulevard, Los Angeles.

This paper reports a case of complete traumatic rupture of the uterus in the ninth month of pregnancy. Ruptures through cesarean or myomectomy scars and those occurring as a result of obstructed labor or operative attempts at delivery or abortion are not considered. The literature is reviewed and reports of forty-one cases found. The mechanics of the accident and the operative treatments are discussed.

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* Thomas Wier, M. D., San Diego, and Hans Schluter, M. D., Sacramento, are monitors for the Obstetrics and Gynecology Section.

Second Meeting—Casino

Wednesday, May 27, 2 p. m.

48. *Chairman's Address: Better Obstetrics*—H. A. Stephenson, M. D., 490 Post Street, San Francisco.

The subject will be dealt with under the following headings: 1. Present mortality rates. 2. Factors concerned in these. 3 Factors looking toward better obstetrics. (*a*) Education of laity. (*b*) Hospital facilities. (*c*) Prenatal care. (*d*) Teaching of obstetrics in medical schools. (*e*) Postgraduate training. (*f*) Specialization in obstetrics.

49. *A Report on the Late Toxemias of Pregnancy*—James V. Campbell, M. D., 2923 Webster Street, Oakland.

A critical review is made of 168 patients showing definite evidence of late toxemia of pregnancy. The report is drawn from 4,979 patients over six months pregnant who were cared for and delivered in private practice. A possible etiologic factor is discussed.

50. *Plastic Surgery of the Pelvic Floor and Adjacent Viscera*—Albert V. Pettit, M. D., 2000 Van Ness Avenue, San Francisco.

1. The anatomical and physiologic factors concerning the normal mechanism of pelvic visceral support. 2. Physical factors involved in maintaining the position and mobility of the uterus. 3. Pudendal hernia. 4. Operations: (*a*) Suspension of the uterus; suspension of vagina and cervix after total and subtotal hysterectomy. (*b*) Plastic operations on the cervix uteri. (*c*) Anterior colporrhaphy for cystocele. (*d*) Perineorrhaphy. (*e*) Enterocele.

51. *The Differential Diagnosis of Ectopic Gestation by Peritoneoscopy*—Robert B. Hope, M. D., 1930 Wilshire Boulevard, Los Angeles.

A short history of peritoneoscopy is given, difficulties encountered in diagnosis of ectopic gestation discussed. Technique of peritoneoscopy as applied to ectopic gestation is described and the common findings discussed. Abstracted case histories are included to show the problems encountered and the solution of them by this method.

RECESS

Election of officers and business meeting.

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IV

EYE, EAR, NOSE, AND THROAT SECTION*

Harold A. Fletcher, M. D., *Chairman*
1440 Medico-Dental Building, 490 Post Street
San Francisco

Frank S. Baxter, M. D., *Vice-Chairman*
Franklin Building, 1624 Franklin Street
Oakland

Dean E. Godwin, M. D., *Secretary*
820 Professional Building, 117 East Eighth Street
Long Beach

First Meeting—Patio Dining Room

Tuesday, May 26, 8:30 a. m.

52. *The Use of Sulphur Dioxid in the Treatment of the Epidemic Cold*—A. G. Rawlins, M. D., 614 Fitzhugh Building, 384 Post Street, San Francisco.

Filterable virus theory in etiology of epidemic cold. Differential diagnosis between epidemic colds, flare-ups of chronic sinusitis, etc.

Use of polarized light in diagnosing filterable virus imperfection in plants, and possible application to human diseases.

Use of sulphur dioxid in treatment of epidemic cold due to filterable virus. Results of patients treated with sulphur dioxid.

Discussion by John MacKenzie Brown, M. D., Los Angeles.

53. *Sinusitis of Dental Origin*—Andrew A. Love, M. D., 305 Medical Office Building, 1136 West Sixth Street, Los Angeles.

Sinus disease in general is considered and the problem of sinusitis of dental origin. The treatment by the otolaryngologist is reviewed and the management by the dental surgeon with particular emphasis on the eventuality of an oroantral fistula after tooth extraction. Slides are shown demonstrating the different methods of closing these fistulae surgically.

Discussion by Herman Semenov, M. D., Los Angeles.

54. *Rhinophyma: The Etiology, Pathology, and Treatment*—Winston C. Crabtree, M. D., 307 Medico-Dental Building, 233 A Street, San Diego.

This study includes a brief discourse on etiology and pathology. Cases are presented with unusual features.

Adequate surgical treatment is usually a fairly simple procedure. Skin grafts are deemed unnecessary. X-ray and radium therapy are useful adjuncts to the surgical treatment. Complete coöperation between dermatologist and rhinologist is advocated for the proper handling of this condition.

Discussion by Frederick G. Novy, Jr., M. D., Oakland.

55. *Observations on Patients in Air-Conditioned Hospital Rooms*—Matthew N. Hosmer, M. D., 620 Fitzhugh Building, 384 Post Street, San Francisco.

Air-conditioned rooms are now an important part of the equipment of a modern hospital. Each room should be conditioned by a separate unit, so that any desired condition can be maintained in any room.

A brief résumé is given of the results obtained in patients suffering from acute and chronic sinusitis, hay fever, asthma, etc., in the air-conditioned rooms in St. Luke's Hospital in San Francisco.

Discussion by Robert R. Montgomery, M. D., Long Beach.

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Second Meeting—Patio Dining Room

Wednesday, May 27, 8:30 a. m.

56. *X-Ray in Otolaryngology*—Orrie E. Ghrist, M. D., 143 North Brand Avenue, Glendale.

History and physical properties of x-rays. Positions essential for the rhinologist to know in interpreting x-ray films and reports. How x-rays are affected by edema, exudates, hyperatrophies, cysts, and new growths. When and what type of bony changes to expect. The relative value of x-rays in diagnosis of sinusitis.

Discussion by S. von Christierson, M. D., San Francisco.

57. *A Newer Technique of Radium Application in Carcinoma of the Bronchus*—Joel J. Pressman, M. D., 1917 Wilshire Boulevard, Los Angeles.

This paper describes a technique of the application of massive doses of radium to the bronchus for primary carcinoma. The advantages of combining this with pneumothorax are included. Slides will be shown demonstrating the technique. There will be a brief résumé of interesting gross and microscopic pathologic specimens also illustrated with slides.

Discussion by Simon Jesberg, M. D., Los Angeles,

58. *Practical Quantitative Perimetry*—David O. Harrington, M. D., Fitzhugh Building, 384 Post Street, San Francisco.

The term "quantitative perimetry" is defined. Reasons for its absolute necessity as a routine office procedure are outlined and illustrative fields are shown. A very simple and inexpensive equipment is described and the desirability of a standard in equipment, charts, and nomenclature is emphasized. Finally, a relatively simple and rapid procedure of field-taking is outlined, practical for office use.

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* Frank S. Baxter, M. D., is monitor for the Eye, Ear, Nose and Throat Section.

Discussion by George L. Kilgore, M. D., San Diego.

59. *The Significance of Scleral Ectasis in Advanced Glaucoma* — M. N. Beigelman, M. D., 203 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Peculiarities of scleral structure explain the localization and the type of scleral ectasis produced by consistently increased intra-ocular pressure. The anatomical changes preceding the accompanying scleral staphyloma in advanced glaucoma are illustrated by gross specimens and microscopic sections. Scleral distention, which has an important bearing upon ocular tension, can be produced intentionally in selected cases of absolute glaucoma.

Discussion by William A. Boyce, M. D., Los Angeles.

RECESS

Election of officers and business meeting.

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Third Meeting—Patio Dining Room

Thursday, May 28, 8:30 a. m.

60. *Treatment of Acute Iritis*—Frank H. Rodin, M. D., 505 Medico-Dental Building, 490 Post Street, San Francisco.

Acute iritis is an emergency and calls for immediate treatment. No case may be considered under control unless all synechias are broken down and the pupil is dilated to its maximum.

The "sheet-anchor" of the treatment is atropin. In case this is insufficient, epinephrin bitartrate should be used or subconjunctival injections of atropin and adrenalin. Nonspecific protein therapy is of great value. Typhoid-paratyphoid vaccine and milk injections are considered.

Discussion by Alfred R. Robbins, M. D., Los Angeles.

61. *The O'Connor Cinch Shortening Operation—Technique* — Samuel A. Durr, M. D., 1304 Medico-Dental Building, 233 A Street, San Diego.

It is probable that this operation has not been generally adopted, only because the essentials of its technique have not been generally understood.

The technique is discussed, mentioning essential instruments and appliances, with emphasis upon clean dissection, hemostasis, and minimizing trauma to tissue.

Discussion by A. Ray Irvine, M. D., Los Angeles.

62. *Ocular Treatment with Diathermy and Short Wave*—Clifford B. Walker, M. D., 410 Auditorium Building, 427 West Fifth Street, Los Angeles.

While it is difficult to prove that any effect other than heat production results from diathermic, long or short wave, applications to the eye, yet the possibility that other effects may exist seems worth consideration.

A variety of electrodes and the method of application of these for treatment to the eye are described.

An attempt is made to indicate the types or group of cases that may be expected to respond to this treatment.

Discussion by Roderic P. O'Connor, M. D., Oakland.

63. *Treatment of Squint*—Melverton E. Trainor, M. D., 924 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

The history of strabismus operations is considered. The four recognized courses are outlined. The aims to be attained by treatment are analyzed. The author's procedure is: (1) The prescribing of full strength correction based on thorough cycloplegic refraction. (2) Operation—complete detachment of both internal recti at their insertion, with detachment of the fascia if necessary.

Discussion by Dennis V. Smith, M. D., Long Beach.

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V

ANESTHESIOLOGY SECTION

William V. Chalmers-Francis, M. D., *Chairman*
1061 Le Clair Place, Los Angeles
Harry J. Smith, M. D., *Secretary*
3115 Webster Street, Oakland

First Meeting—Grill Room

Wednesday, May 27, 2 p. m.

64. *The Advantages of Sodium Evipal Intravenous Anesthesia* — Henry Verrill Findlay, M. D., 1515 State Street, Santa Barbara.

This paper is based upon personal experience on over 150 cases. It briefly reviews the history of intravenous anesthesia and summarizes the reported experience with evipal, one of the newer barbiturates. The experimental evidence pointing to the safety of the drug is stressed. The dangers and contraindications; a brief review of the technique of administration; the rapid recovery and absence of postoperative nausea are emphasized. The rapidity of elimination and the effect upon the blood sugar in diabetics is illustrated by slides.

65. *The Detoxification of Procain* — John G. Dunlop, M. D., 111 N. Normandie Avenue, Los Angeles.

A report of experiments conducted to determine the site and rate of destruction and elimination of procain hydrochlorid by dogs.

66. *Obstetrical Anesthesia*—La Verne Wright, M. D., 3856 California Street, San Francisco.

Agents used at present for analgesia in the first and second stages of labor, their effects on mother and child and safe anesthesia in the third stage.

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Second Meeting—Casino

Thursday, May 28, 8:30 a. m.

67. *Chairman's Address*—William V. Chalmers-Francis, M. D., 1061 Le Clair Place, Los Angeles.

68. *Peridural Anesthesia* — Ida Heissig, M. D., 1100 Mission Road, Los Angeles.

Definition—An extradural nerve block of a region, and similar to a spinal but without its dangers.

Technique: (1) Lying on side, head and knees flexed. Insertion of needle in lumbar interspaces to epidural space—50 cubic centimeters of 2 per cent novocain injected. (2) Patient in sitting position and insertion of spinal needle in thoracic region.

Premedication: Same as for spinal. Advantages: No shock, no interference with the functions of any viscera, no paralyses of legs which alarm patients.

Contraindications: Patients hypersensitive to novocain. Conclusion: A form of regional anesthesia which should be a part of the armamentarium of a good anesthetist.

69. *Premedication for Surgery*—James C. Doyle, M. D., 1930 Wilshire Boulevard, Los Angeles.

History of—for children. Medications in frequent use. Pharmacology and therapeutics. For gas and general anesthetics. For subarachnoid and block type of anesthesia. For avertin and evipal.

RECESS

Election of officers and business meeting.

VI

DERMATOLOGY AND SYPHILOLOGY SECTION*

William H. Goeckerman, M. D., *Chairman*
1216 Roosevelt Building, 727 West Seventh Street
Los Angeles

Norman N. Epstein, M. D., *Vice-Chairman*
450 Sutter Street, San Francisco

Stanley O. Chambers, M. D., *Secretary*
826 Roosevelt Building, 727 West Seventh Street
Los Angeles

First Meeting—Vestibule A

Monday, May 25, 2 p. m.

70. *Scleroderma*—E. D. Lovejoy, M. D., 812 Brockman Building, Los Angeles, and Ervin Epstein, M. D., 1200 State Street, Los Angeles. (By invitation.)

A complete review of the literature emphasizing etiology, treatment, histopathology, laboratory evidence, and differential diagnosis is presented. Clinical and microphotographs accompany the presentation with detailed graphs to emphasize the compounded conclusions of various authors.

Discussion by Steele F. Stewart, M. D., Los Angeles; G. Y. Rusk, M. D., San Francisco.

71. *Skin Lesions of Tuberculosis as Imitators of Other Skin Lesions*—H. C. L. Lindsay, M. D., 1680 North Vine Street, Hollywood.

The similarity of tuberculous skin lesions to counterparts due to other infections and diseases of the skin exists. Granulomata, verrucae and ulcerative lesions of tuberculosis are occasionally difficult to differentiate from their leprous, frambesiform or syphilitic counterparts. Psoriasiform, acneiform, and rosaceaform nodular lupus vulgaris closely resemble psoriasis, acne vulgaris and acne rosacea, respectively. Hematogenous tuberculous lesions may resemble other blood-borne infections on the skin. Differential diagnosis and treatment is briefly touched upon.

Discussion by Howard Morrow, M. D., San Francisco.

72. *Smallpox Vaccine in the Treatment of Recurrent Herpes Simplex*—Paul D. Foster, M. D., 2007 Wilshire Boulevard, Los Angeles, and Alton B. Absheir, M. D., New York. (By invitation.)

The treatment of herpes simplex recurrent has always been a source of embarrassment to physicians. Patients always feel that a recurrence of any condition is the fault of the physician. However, when the etiology of a condition is not known, the treatment is usually unsatisfactory.

We are presenting a treatment which has been used in Europe for several years, but has had little publicity in America. The recurrent herpes simplex cases when vaccinated with ordinary smallpox vaccine show a shortened period of activity for that particular attack and definite immunization to further attacks. Thirty-four cases are presented with four recurrences after two years.

Discussion by Howard Morrow, M. D., San Francisco.

73. *Rosacea-like Tuberculid of Lewandowsky*—Saul S. Robinson, M. D., 1101 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

The patient is a female, aged 25, who complains of an eruption on her face of six months' duration. The cheeks and the chin are especially involved. The clinical findings are discrete papules of apply-jelly color, with some interspersed pustules on an erythematous base. The histopathologic findings confirm the diagnosis of this case. A survey of the literature, photographs, photomicrographs, tissue sections (H and E and Zeehl-Neelsen stains), routine blood and urine examinations, tuberculin tests, and chest x-ray, have been done for a complete study of this condition.

Discussion by Marvin S. Harris, M. D., Los Angeles; A. Herman Zeiler, M. D., Los Angeles.

74. *Treatment of Cutaneous Malignancies*—Harry P. Jacobson, M. D., 2007 Wilshire Boulevard, Los Angeles.

Successful treatment of cutaneous cancer depends upon early diagnosis. Regardless of what method of therapy one employs—radiation, cold-knife surgery, electrosurgery, or actual cautery—the task must be performed with thoroughness and fearlessness. The actual cautery offers the cancer victim the best chance. Hemorrhage is minimal, and the extent of operation easily controlled.

Discussion by James F. Percy, Los Angeles; A. Herman Zeiler, M. D., Los Angeles.

75. *Scabicidal Drugs—Experimental Study*—H. J. Templeton, M. D., and H. V. Allington, M. D., 3115 Webster Street, Oakland.

An attempt has been made in our work to evaluate the scabicidal action of some of the newer and older drugs used in the treatment of scabies.

This has been done by carefully removing the living acari from their burrows, imbedding them in various scabicidal ointments and observing them at regular intervals until no signs of life remained, as judged by cessation of motion of their extremities or viscera.

Discussion by Hiram Miller, M. D., San Francisco; George V. Kulchar, M. D., San Francisco.

RECESS

Election of officers and business meeting.

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Second Meeting—Vestibule A

Tuesday, May 26, 8:30 a. m.

76. *Chairman's Address: Some Thoughts on the Future of Dermatology*—William H. Goeckerman, M.D., 1216 Roosevelt Building, Los Angeles.

Specialism in medicine will continue much as in other activities in life. Dermatology, to fill a public want, must shape itself in the proper manner. The pure morphologist has seen his day. The modern dermatologist must be a physician first and a specialist only second. If he achieves this status he will fill a medical need for generations to come.

77. *Cutaneous Manifestations of Xanthomatosis*—Stanley C. Anderson, M. D., Veterans' Administration Hospital, Los Angeles.

The writer discusses cutaneous manifestations of xanthomatosis with relation to other forms of xanthomatosis. A patient with extensive cutaneous involvement has been studied. This case offers an opportunity for review of the subject together with recent concepts of associated lipoid metabolism.

Discussion by Phillip E. Rothman, M. D., Los Angeles; Howard Morrow, M. D., San Francisco.

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* C. Ray Lounsberry, M. D., San Diego, and Philip K. Allen, M. D., San Diego, will act as monitors for the Dermatology and Syphilology Section.

78. *Hyperpyrexia as an Adjunct in the Treatment of Cerebrospinal and Kahn-Fast Syphilis*—James E. Potter, M. D. (by invitation), Bremerton, Washington; Francis H. Redewill, M. D., 686 Flood Building, San Francisco; and E. G. Longley, M. D., Bremerton, Washington. (By invitation.)

A review of current literature, physiology of the skin with special reference to its reaction in air-conditioned and non-air-conditioned cabinets, hyperpyrexia created by electro-magnetic induction, discussion of heat-resistant patients. Comparison of results obtained from the use of three types of cabinets. Comparison of results obtained when patients were treated with hyperpyrexia alone and when treated with other routine medication, and its application and feasibility as an office procedure. Review of results obtained in 150 cases.

Discussion by Eugene S. Kilgore, M. D., San Francisco; F. S. Dillingham, M. D., Los Angeles; A. G. Folte, M. D., San Francisco; Charles G. Foote, M. D., San Diego.

79. *Epulis Granulomatosa*—Samuel Ayres, Jr., M. D., and Nelson Paul Anderson, M. D., 2007 Wilshire Boulevard, Los Angeles.

Clinical photographs and histologic sections are presented to illustrate an unusual lesion of the gums, which is to be differentiated from carcinoma. The lesion is associated with dental sepsis, is benign, and in the case presented herewith disappeared following exposure to x-ray and radium.

Discussion by Emil Tholen, M. D., Los Angeles; H. J. Templeton, M. D., Oakland.

80. *Myeloid Leukemia with Extensive Ulcerations of the Skin*—Charles R. Caskey, M. D., 1930 Wilshire Boulevard, Los Angeles.

History of case is presented with early lesions simulating factitia. A pathologic diagnosis of carcinoma was made. Later lesions resembled mycosis fungoides, "d'emblée" type. A diagnosis of syphilis was also entertained. Pathologists of international reputation agree on diagnosis of myeloid leukemia from autopsy material. Pathologic reports by George Maner, M. D., Los Angeles, autopsy findings; Stuart C. Way, M. D., San Francisco, and Lee McCarthy, M. D., histopathologic findings.

Discussion by Moses Scholtz, M. D., Los Angeles; L. Dale Huffman, M. D., Los Angeles.

81. *The Therapeutic Effects of Mapharsen in Syphilis*—Norman N. Epstein, M. D., 450 Sutter Street, San Francisco.

Mapharsen, better known as arsenoxid, is believed to be the most effective therapeutic product in the breaking down of the arsphenamins within the body. A summary of the therapeutic effects obtained with this drug in a series of patients treated at the University of California during the past two years is reported.

Discussion by Chauncey D. Leake, Ph.D., San Francisco; Ernest H. Falconer, M. D., San Francisco.

82. *Leukoplakia*—Arne E. Ingels, M.D., Medico-Dental Building, 490 Post Street, San Francisco.

A résumé will include a brief survey of the literature, including present-day conceptions. Etiology of the disease, particularly chemical and mechanical factors and predisposing factors like disease (syphilis) and age and hygienic conditions, will be dealt with. Different modes of treatment—surgery, electrodesiccation, radium, and x-ray. Slides and clinical photographs for purpose of the differential diagnosis are presented.

Discussion by P. K. Gilman, M. D., San Francisco; Loren R. Chandler, M. D., San Francisco; Orville Meland, M. D., Los Angeles.

VII

INDUSTRIAL MEDICINE AND SURGERY SECTION*

J. Minton Meherin, M. D., *Chairman*
507 Union Square Building, 350 Post Street
San Francisco

Frederic C. Bost, M. D., *Secretary*
Fitzhugh Building, 384 Post Street
San Francisco

First Meeting—Casino

Tuesday, May 26, 8:30 a. m.

83. *The Diagnostic Value of Pneumoradiography of the Knee*—Paul A. Quaintance, M. D., 2007 Wilshire Boulevard, Los Angeles.

A review of the literature with a description of the author's technique and a report of fifty cases. Pneumoradiography is evaluated as a diagnostic and differentiating aid in semilunar cartilage injuries and other derangements of the knee.

Discussion by Samuel S. Mathews, M. D., Los Angeles.

84. *Salt Water Pool Treatment of Osteomyelitis and Suppurative Joints*—A. Brockway, M. D., 3523 West Twelfth Street, Los Angeles.

Early motion in pus-ridden joints is imperative. The salt pool is ideal for such treatment because it permits motion without pain, the solution is antiseptic and because of its hypertonicity causes an outflow of lymph and pus from the innermost depths of the wound.

Discussion by Francis M. McKeever, M. D., Los Angeles.

85. *Important Anatomical and Functional Features of the Distal Radio-Ulnar Joint*—John B. de C. M. Saunders, M. B., University of California Medical School, San Francisco. (By invitation.)

The morphologic features of the distal radio-ulnar joint, its ligamentous support and other anatomical structures will be discussed. The functional anatomy of this joint will be considered as part of a unit consisting of elbow, radio-ulnar, wrist and intercarpal movement, and it will be pointed out how derangements which occur following trauma in the region of the wrist establish dysfunction in the motions of the arm.

86. *Injuries to the Distal Radio-Ulnar Joint*—LeRoy C. Abbott, M. D., Fitzhugh Building, 384 Post Street, San Francisco.

Injuries to the distal radio-ulnar joint occur with greater frequency than commonly recognized. Minor or major disability may follow this injury. Recognition of the disturbance makes possible the application of treatment which may yield an excellent functional result. The prophylactic and reparative treatment is discerned.

Discussion by Maynard C. Harding, M. D., San Diego.

87. *Surgical Fractures of the Mandible*—George C. Hensel, M. D., 2000 Van Ness Avenue, San Francisco.

Fractures of the mandible are classified in three groups according to demands of treatment. Anatomical and physiologic requirements of function of the mandible are emphasized as the determining factors in the choice of treatment. Fractures falling into either definite or possible surgical groups are discussed from the standpoint of diagnosis and surgical treatment.

Discussion by H. Waldo Spiers, M. D., Los Angeles.

RECESS

Election of officers and business meeting.

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* Richard B. McGovney, M. D., Santa Barbara, and Fraser L. Macpherson, M. D., San Diego, are monitors for the Industrial Medicine and Surgery Section.

Second Meeting—Casino

Wednesday, May 27, 8:30 a. m.

88. *The Clinical and Industrial Aspects of Silicosis Pneumoconiosis*—Harold M. F. Behneman, M.D., Fitzhugh Building, 384 Post Street, San Francisco.

The clinical picture of silicosis is given and a summary of the industrial legislation throughout the United States concerning this condition is presented.

89. *The Problem of the Peripheral Artery in Industrial Practice*—Felix L. Pearl, M.D., 450 Sutter Street, San Francisco.

A discussion of the rôle of underlying peripheral arterial disease in the management of the industrial patient. The paper also considers traumatic lesions of the arteries.

Discussion by Vernon P. Thompson, M. D., Los Angeles.

90. *Pedicle Flap Patterns for Hand Reconstruction*—Gerald Brown O'Connor, M. D., Medico-Dental Building, 490 Post Street, San Francisco.

A consideration of the types and varieties of soft tissue coverage needed for volar and dorsal hand repair as well as for digital reconstruction. Description of various pedicle flap patterns used in hand reconstruction with a discussion of the selection of flap patterns; methods of obtaining them; their application, management, and result in functional hand reconstruction.

Discussion by William S. Kiskadden, M. D., Los Angeles.

91. *Rupture of the Nucleus Pulposus—The Importance of Making a Diagnosis*—Ottiwell W. Jones, Jr., M. D., University of California Medical School, San Francisco.

The signs and symptoms of the dislocated nucleus pulposus are enumerated and emphasized. The differential diagnosis is discussed and surgically proved. Cases are presented.

Discussion by Richard T. Taylor, M. D., Los Angeles.

92. *Immediate Versus Delayed Primary Tendon Repair*—Martin W. Debenham, M. D., 2712 Union Street, San Francisco, and Walter D. Birnbaum, M. D., Medico-Dental Building, 490 Post Street, San Francisco.

The literature concerning this much debated question has been reviewed and the authors present clinical and experimental data to support their own conclusions.

Discussion by Fraser L. Macpherson, M. D., San Diego.

VIII

NEUROPSYCHIATRY SECTION*

Sydney Kinnear Smith, M. D., *Chairman*
230 Grand Avenue, Oakland

J. M. Nielsen, M. D., *Secretary*
1253 Roosevelt Building, 727 West Seventh Street
Los Angeles

First Meeting—Grill Room

Monday, May 25, 2 p. m.

93. *Chairman's Address: Where Psychotics Come From*—Sydney Kinnear Smith, M. D., 230 Grand Avenue, Oakland.

This paper embodies an attempt to analyze the family background of one hundred psychotic individuals. The psychotic group employed is chosen without reference to type of case, including the majority of disorders, as listed in the classification of the American Psychiatric Association.

The family backgrounds are considered from the point of view of nationality, religion, social status, intellectual status, emotional stability, presence of psychoses, psychoneuroses, etc.

94. *Present Status of Undergraduate and Graduate Psychiatric Education in America*—Franklin G. Ebaugh, M. D., University of Colorado, 4200 East Ninth Street, Denver, Colorado. (By invitation.)

95. *Psychosis in the Mentally Defective*—Fred O. Butler, M. D., Sonoma State Home, Eldridge.

A survey of the various types of psychoses found among the mentally defective patients in California's largest hospital for the feebleminded is presented, with comments on their relative frequencies, their similarities to and variations from those found among the general population as regards symptomatology, diagnosis, and prognosis. The lack of mental development alters considerably the course of the psychosis in these patients.

Discussion by Margaret H. Smyth, M. D., Stockton.

96. *Fallacious Trends in Psychiatry*—William Edler, M. D., 595 East Colorado Street, Pasadena.

Research work in psychiatry is handicapped by the trend to metaphysics and occultism. A dysfunctioning brain should be viewed analogously to disease of any other viscus. The so-called functional psychoses are of unknown etiology, and this should be admitted by the medical profession. Instead, there has developed within the profession bizarre cultism that closely resembles fakery and charlatanism.

Discussion by Fred O. Butler, M. D., Eldridge.

Second Meeting—Grill Room

Tuesday, May 26, 8:30 a. m.

97. *Development of Myelitis During Course of Intramuscular Injections of Rabies Vaccine*—F. G. Lindemulder, M. D., 2001 Fourth Avenue, San Diego.

The author presents a brief review of the literature on complications following injections of rabies vaccine, and the number of patients receiving vaccines from various pharmaceutical houses, with no sequelae. A case is presented in which myelitis developed during a course of intramuscular injections of rabies vaccine and reference is made to the signs and symptoms as they developed. A possible explanation is offered of the cause of the central nervous system involvement.

Discussion by Samuel D. Ingham, M. D., Los Angeles; Charles Schroeder, D. V. M., San Diego. (By invitation.)

98. *The Clinical Significance of Lumbar Radiculitis and of Neuritis of the Femoral Nerve*—John B. Doyle, M. D., 1930 Wilshire Boulevard, Los Angeles.

From time to time clinical pictures of progressive involvement of the roots of the lumbar nerves and of neuritis of the femoral nerve are encountered. When caudal and spinal diseases have been excluded, it may be safely assumed that the etiologic factor is tumor or glandular enlargement. Illustrative cases are presented.

Discussion by Carl W. Rand, M. D., Los Angeles; Walter F. Schaller, M. D., San Francisco.

99. *The Cardiovascular, Respiratory, and Metabolic Rate Responses of the Body to Fever Therapy*—Helen Hopkins, M. D., 3875 Wilshire Boulevard, Los Angeles.

Blood pressure, heart rate, respiratory function and metabolic rate determinations have been made in patients undergoing fever therapy in an attempt to correlate these responses with the clinical changes which make their appearance.

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* Delbert H. Werden, M. D., San Diego, and F. G. Lindemulder, M. D., San Diego, will act as monitors for the Neuropsychiatry Section.

Discussion by J. S. Hibben, M. D., Pasadena.

100. *Primary Lateral Sclerosis—A Clinical and Pathologic Study*—Mervyn H. Hirschfeld, M. D., 450 Sutter Street, San Francisco.

Case history and pathologic report demonstrating a clinical entity, the existence of which is doubted by many modern authorities. A male, age 43, suffered a spastic paralysis beginning in the right leg and ascending to include the cranial motor nerves. At no time were there any symptoms indicating involvement of other tracts or anterior horn cells. The pathology was limited to the pyramidal system. Atrophy of the motor cortex, lysis of Betz cells, and sclerosis of the pyramidal tracts, are shown by pictures and slides.

Discussion by Walter F. Schaller, M. D., San Francisco; Samuel D. Ingham, M. D., Los Angeles.

Third Meeting—Grill Room

Wednesday, May 27, 8:30 a. m.

101. *Hydration as a Factor in Epilepsy—A Clinical Study*—Eugene Ziskind, M. D., 1052 West Sixth Street, Los Angeles; Esther Somerfield, M. D., and Ruth O. Bolton, B. S., 1930 Wilshire Boulevard, Los Angeles.

The authors report on original studies in which they gave seven quarts of water to each of a series of epileptic patients and succeeded in precipitating convulsions by this method in one-fourth of the number tested. An effort is made to correlate these results with changes in the blood concentration. The current conceptions of dehydration therapy in epilepsy are discussed.

Discussion by Samuel D. Ingham, M. D., Los Angeles.

102. *Interval Hemorrhages Following Trauma—A Clinical-Surgical-Pathologic Study of Twenty-Six Cases*—R. B. Raney, M. D., 727 West Seventh Street, Los Angeles.

Work is reported on interval hemorrhages encountered at the Los Angeles County Hospital over a period of twenty months. There were fourteen cases of subdural hemorrhage, six of extradural, and three mixed. All of the subdural and extradural cases were operated upon. The patients recovered in twelve of these cases. The diagnosis and treatment are discussed.

Discussion by Carl W. Rand, M. D., Los Angeles.

103. *Ischemic Softening of the Brain in Tuberculous Meningitis*—Clarence W. Olsen, M. D., White Memorial Hospital, Los Angeles, and Albert F. Brown, M. D., 1200 North State Street, Los Angeles.

Foci of cerebral softening are not infrequently noticed in material from cases of tuberculous meningitis. The associated clinical manifestations may present difficulty in diagnosis. There are considered in this paper recent cases in which cerebral softening was a striking feature.

Discussion by Cyril B. Courville, M. D., Los Angeles.

104. *The Pathogenesis of Otogenous Cerebellar Abscess*—Cyril B. Courville, M. D., White Memorial Hospital, Los Angeles, and J. M. Nielsen, M. D., 727 West Seventh Street, Los Angeles.

An otogenous abscess may be located either in the cerebrum or cerebellum, and in either situation may be "adjacent" or "distant." The pathway traveled by the infecting organism, the peculiar structure, and the anatomic relationships of the cerebellum predicate the type and location of cerebellar abscess. In this study particular attention is given to the pathways of infection. In addition to the usual route through the "death angle," infection by way of venous channels and the meningeal spaces is considered.

Discussion by Carl W. Rand, M. D., Los Angeles; R. B. Raney, M. D., Los Angeles.

IX

PATHOLOGY AND BACTERIOLOGY SECTION[*]

Rawson J. Pickard, M. D., *Chairman*
805 Watts Building, 520 E Street
San Diego

George D. Maner, M. D., *Secretary*
657 South Westlake Boulevard
Los Angeles

Zera E. Bolin, M. D., *Assistant Secretary*
Medico-Dental Building, 490 Post Street
San Francisco

First Meeting—Vestibule B

Monday, May 25, 2 p. m.

105. *The Thymus Gland in Health and Disease*—Paul Michael, M. D., 434 Thirtieth Street, Oakland.

This paper deals with the embryology, histology, physiology, and pathology of the thymus gland. It includes a review of experimental work on animals up to date, and also includes a statistical study of two hundred thymus glands removed at autopsy with clinical correlation.

106. *Meningo-encephalitis*—G. Y. Rusk, M. D., Mount Zion Hospital, San Francisco.

A male, aged 27, a case of Dr. Julius Sherman's, was one of a family with respiratory infection considered of influenza type. The patient was admitted to the hospital on the fifth day of illness, having become febrile, somewhat lethargic, and finally falling unconscious before admission. Death occurred about twenty-two hours later. Report of the pathologic findings, including meningo-encephalitis (virus type) is presented.

107. *Experimental and Postmortem Studies on the Dual Blood Supply of the Lungs in Various Pathologic Conditions*—Mary E. Mathes, M. D., and David A. Wood, M. D., Departments of Pathology and Surgery, Stanford University School of Medicine, San Francisco.

A study of the bronchial and pulmonary arterial changes which occur in various pathologic conditions, such as chronic inflammatory pulmonary lesions, pulmonary tuberculosis, lung tumors, congenital cysts of the lungs, and cases of right-sided heart hypertrophy. Stereoscopic x-ray films of lungs in which the bronchial arteries have been injected with bismuth oxychlorid, show important characteristic changes.

108. *Pathologic Changes in Myasthenia Gravis and Muscular Dystrophies*—Charles L. Connor, M. D., University of California Medical School, San Francisco.

The paper is based on a study of two cases of myasthenia gravis and four cases of muscular dystrophies, all with autopsies.

The changes in myasthenia gravis in the muscles are fairly constant, but no other consistent features are found. Chronic thyroid disease and a persistent thymus are the only additional factors which may be present. The muscle lesion is a degenerative phenomenon associated with the presence of groups of lymphocytes. In the muscular dystrophies of children there is also one constant finding and that is what appears to be lack of complete development of skeletal muscle. In other words, this is not so much a degeneration, but an aborted attempt to form normal muscle. The nerve changes are vague and usually not present. There appears to be no reason for the large number of clinical types of this disease which have been described. (Lantern slides.)

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[*] Howard A. Ball, M. D., San Diego; Alvin G. Foord, M. D., Pasadena, and Zera E. Bolin, M. D., San Francisco, will act as monitors for the Pathology Section.

109. *Lipoid Pneumonia*—David A. Wood, M. D., Department of Pathology, Stanford University School of Medicine, San Francisco.

A discussion of the etiologic factors in the production of lipoid pneumonia and the anatomic changes produced thereby. Report of a case occurring in a male eighty years of age afflicted with a chronic bronchopneumonia for several years preceding his death. At autopsy the typical lesions of lipoid pneumonia.

110. *Cancer Clinics*—Zera E. Bolin, M. D., Medico-Dental Building, 490 Post Street, San Francisco.

The cancer situation in California. The California Medical Association's Cancer Commission. The need of professional education. How to make the staff of a hospital conscious of the cancer problem. Organization of a cancer committee of a hospital staff. Records and follow-up. Experience in a small hospital. The results obtained.

RECESS

Election of officers and business meeting.

Second Meeting—Vestibule B

Tuesday, May 26, 8:30 a. m.

111. *Chairman's Address*—Rawson J. Pickard, M. D., 805 Watts Building, San Diego.

112. *Individual Differences in Human Blood and Their Medico-Legal Applications*—Roy W. Hammack, M. D., 657 South Westlake Avenue, Los Angeles.

Heredity of the blood groups. Theories of inheritance of the agglutinogens A and B. Bernstein's theory. The subgroups of A and group A B. The agglutinogens M and N and their heredity. Medico-legal applications. Types of cases. Proof of non-paternity. Determination of groups in blood stains. Recognition by the courts.

113. *Infectious Mononucleosis*—Round-table discussion.

(a) *Serologic and Pathologic Aspects*—E. M. Butt, M. D., University of Southern California Medical School, Los Angeles.

Discussion as to the presence of sheep cells agglutinins and hemolysins in the blood serum of cases of infectious mononucleosis. Nature of heterophile antibodies. Description of histopathology in lymph nodes and tonsils.

(b) *Hematologic Aspects*—Madeline Fallon, M. D., Children's Hospital, Los Angeles. (By invitation.)

Discussion of the blood picture associated with this disease, especially the morphology of the characteristic mononuclear cell. Observations and ideas as to the origin, nature and classification of the mononuclear cell. Differentiation between leukemia and other conditions from the hematologist's viewpoint. Presentation of charts and lantern slides.

(c) *Clinical Aspects*—A. M. Hoffman, M. D., 803 Medical Office Building, Los Angeles.

Differentiation, if any, between infectious mononucleosis and glandular fever. Sporadic versus "epidemic" cases. Incidence in young adults and children. Clinical manifestations enumerated and illustrative cases cited, demonstrating confusion in differential diagnosis and variability in course.

Third Meeting—Vestibule B

Wednesday, May 27, 8:30 a. m.

114. *Histopathology of Mixed Tumors of the Parotid Gland*—J. W. Budd, M. D., St. Vincent's Hospital, Los Angeles.

Tumors occurring in the salivary gland region have long been a subject of controversy. They present a complex structure having a ground substance of myxomatous tissue, hyaline connective tissue and cartilage, and inclusions of cells similar to glands, pavement, epithelium, cornified pearls, prickle cells or with protoplasmic fibrillations.

Without attempting to offer evidence as to their histogenesis the microscopic structure of a small series of these tumors is reviewed.

115. *Allergy—Lesions Produced by Injection of Protein*—Louisa Hemken, M. D., University of Southern California Medical School, Los Angeles.

This experimental study considers the morphologic changes produced by nonspecific foreign protein. Rabbits have been given repeated intravenous injections of normal horse serum. Lesions, indicative of hyperergic inflammation, are to be demonstrated in the coronary arteries, the heart muscle, the lungs and kidneys. These lesions are similar to those occurring in periarteritis nodosa and rheumatic heart disease.

116. *Alterations in Carbohydrate Metabolism Following Hypophysectomy in Rats*—Howard A. Ball, M. D., Medico-Dental Building, 233 A Street, San Diego.

Oral administration of glucose after hypophysectomy may present a variety of responses in the blood-sugar curve. The response following subcutaneous administration is more consistent and shows a progressive change during the period of observation. Discussion includes sugar curves, liver and muscle glycogen assays and the relation of the adrenals to the effects observed.

117. *Goiters of Unusual Types*—A. G. Foord, M. D., Pasadena Hospital, Pasadena.

Clinical and pathologic reports and observations on the following types of lesions of the thyroid: (1) Hashimota's disease. (2) Riedel's tumor. (3) Chronic thyroiditis with lipomatous infiltration. (4) Hiirthle cell tumors, with discussion of the origin of the characteristic cell. Demonstration of gross material and lantern-slide presentation of histopathology.

X

PEDIATRIC SECTION*

Sam J. McClendon, M. D., *Chairman*
2001 Fourth Street, San Diego

Edward B. Shaw, M. D., *Secretary*
Fitzhugh Building, 384 Post Street
San Francisco

E. E. Moody, M. D., *Assistant Secretary*
3780 Wilshire Boulevard, Los Angeles

First Meeting—Patio Dining Room

Monday, May 25, 2 p. m.

118. *Prevention and Treatment of Whooping-Cough*—J. M. Frawley, M. D., 615 Patterson Building, Fresno.

The etiology and diagnosis of whooping-cough are briefly discussed. The development of biologic therapy is reviewed and the use of vaccine in prophylaxis and treatment is described in detail.

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* Roy N. Taylor, M. D., Long Beach, and Lawrence R. Jacobus, M. D., Oakland, will act as monitors for the Pediatrics Section.

Discussion by A. J. Scott, Jr., Lös Angeles; Guy L. Bliss, M. D., Long Beach; Francis S. Smyth, M. D., San Francisco.

119. *Theories of the Etiology of Congenital Deformities*—William S. Kiskadden, M. D., 1930 Wilshire Boulevard, Los Angeles.

Old and new theories of the etiology of congenital deformities. Consideration from a genetic, anatomic, embryologic and clinical basis, with examples including harelip and cleft palate, deformities of the hands and feet, nose, ear, penis and skeletal structures, illustrated with lantern slides.

Discussion by Oscar Reiss, M. D., Los Angeles; Howard L. Updegraff, M. D., Hollywood.

120. *Erythroblastosis Neonatorum* — William M. Happ, M. D., 3875 Wilshire Boulevard, Los Angeles.

Presentation of a case and review of the literature on this subject.

Discussion by William P. Lucas, M. D., San Francisco; Harold K. Faber, M. D., San Francisco.

121. *Immunotransfusions in the Treatment of Communicable Diseases* — P. M. Hamilton, M. D., 248 East Main Street, Alhambra.

Successes and failures of whole blood and serum from immune donors in specific treatment of communicable diseases, as seen at the Los Angeles County General Hospital.

Discussion by W. S. Bowers, M. D., Los Angeles; C. M. Hyland, M. D., Los Angeles.

122. *Treatment of Bronchopneumonia in Children by Carbon Dioxid Inhalations*—Randolph G. Flood, M.D., Medico-Dental Building, 490 Post Street, San Francisco.

A series of 173 cases so treated is reported with results and routine used. The physiology of CO_2 in normal respiration is discussed and its specific action is demonstrated by slides. A clinical study of the response of various types of pneumonia is discussed as well as the complications observed in this series.

Discussion by Donald K. Woods, M. D., San Diego.

RECESS

Election of officers and business meeting.

Second Meeting—Patio Dining Room

Wednesday, May 27, 2 p. m.

123. *Chairman's Address: Some Trends of Present-Day Pediatrics* — Sam J. McClendon, M. D., 2001 Fourth Street, San Diego.

A brief summary of the present status of the control of contagious disease and of the handling of growth and development problems from an endocrine standpoint; and a prophetic glance into the future in the light of present-day investigations along these lines.

124. *Trends in Child Psychiatry*—Ernst Wolff, M. D., 450 Sutter Street, San Francisco.

The paper is based on the experiences of a study trip East in 1935. It deals with the various forms of child psychiatric organization—methods of approach to the case; diagnostic procedure; therapeutic attitudes and educational function in the community.

Discussion by Franklin G. Ebaugh, M. D., Denver, Colorado. (By invitation.)

125. *Functional Hypoglycemia Among Infants and Children—A Review, with Particular Reference to Its Recurrent Convulsive Manifestations*—John Mott Rector, M. D., 2000 Van Ness Avenue, San Francisco.

The paper is based upon a contribution of eleven cases of functional or spontaneous hypoglycemia associated with recurrent convulsions observed in children. The etiology, incidence, and general characteristics of hypoglycemia in childhood are described, together with a consideration of the diagnosis, therapy, and prognosis of this disorder.

Discussion by Francis S. Smyth, M. D., San Francisco; Hugh K. Berkley, M. D., Los Angeles.

126. *The Value of Simple Eye Tests in a Pediatrician's Office* — William Palmer Lucas, M. D., and Helen M. Johnson, M. D., 490 Post Street, San Francisco.

Mental as well as physical outlook on life depends upon eyesight. Ability to read a chart with ease may not mean that glasses are unnecessary. Physicians should, therefore, invariably supplement the screening eye tests given at school by objective and subjective examination. Suggestions for both with reports of cases.

Discussion by George Newton Hosford, M. D., San Francisco.

127. *Mesenteric Lymphadenitis and the Acute Abdomen*—Mary B. Olney, M. D., University of California Hospital, San Francisco.

A presentation of a series of cases illustrating the clinical entity recognized as mesenteric lymphadenitis with salient features, differentiation from acute appendicitis, course, treatment, and prognosis.

Discussion by H. Glenn Bell, M. D., San Francisco; Francis S. Smyth, M. D., San Francisco.

128. *Facts and Fallacies About the Feet in Young Childhood*—Edwin F. Patton, M. D., 3875 Wilshire Boulevard, Los Angeles.

An attempt to work out a classification of foot defects of the early walking age more refined than that in general usage today, and to rationalize measures of correction applicable to each specific division, with the purpose of avoiding the undertreatment and overtreatment so prevalent at present.

Discussion by Clifford B. Sweet, M. D., Oakland; Fraser L. Macpherson, M. D., San Diego.

XI

RADIOLOGY SECTION*

Alfred C. Siefert, M. D., *Chairman*
411 Thirtieth Street
Oakland

William E. Costolow, M. D., *Secretary*
1407 South Hope Street
Los Angeles

First Meeting—Bridge Room

Monday, May 25, 2 p. m.

SYMPOSIUM ON BONE LESIONS

129. *Chairman's Address: Meditations on the Science and Practice of Medicine, with Particular Reference to Radiology* — Alfred C. Siefert, M. D., 411 Thirtieth Street, Oakland.

My intention is to throw the "spotlight," so to speak, in brief, aphoristic style, upon some trends in modern medicine—economic, political, and philosophical—with special application to the art and science of radiology, and the radiologist as an individual. Problems will not be discussed, much less solved. The idea will be simply to arouse thought.

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* John B. Eneboe, M. D., San Diego, will act as monitor for the Radiology Section.

130. *The Roentgenologic Diagnosis of Bone Tumors*—Kenneth S. Davis, M. D., 2131 Ocean View Boulevard, Los Angeles.

A résumé of the diagnostic roentgenologic findings of the various primary bone tumors.

131. *Points in the Consideration of Bone Tumors from the Clinical and Surgical Standpoint*—Hugh T. Jones, M. D., 201 Medical Office Building, 1136 West Sixth Street, Los Angeles.

To the clinician and surgeon usually comes the responsibility of the decision as to the type of treatment to be employed. He must make full use of the aid given by the roentgenologist, the pathologist, and the laboratory, but must not lose sight of the fact that the final responsibility must be his. The surgeon is concerned to know when not to do radical sursurgery rather than when an amputation is clearly indicated. The paper will deal particularly with certain pitfalls to avoid and indication to help to determine when surgery is not to be done.

132. *Radiation Therapy in Bone Tumors* — Orville N. Meland, M. D., 1407 South Hope Street, Los Angeles.

Radiation therapy of bone tumors has been carried out for many years and has gradually passed from the stage of empiricism. This has been due to greater accuracy of diagnosis from an x-ray standpoint, as well as the taking of biopsies which give an idea as to sensitivity. Where biopsies are not obtainable the patient may be given a radiologic therapeutic test. Some lesions may be treated by irradiation alone, others by surgery alone, while some should be given the benefit of combined treatment.

133. *Metastatic Malignancy of the Osseous Structures*—Henry Snure, M. D., California Hospital, Los Angeles, and George D. Maner, M. D., 657 South Westlake Avenue, Los Angeles.

A roentgenologic and pathologic study. Report on experimental observations. Consideration of the factors necessary for visualization of metastasis on the roentgen film. (Lantern slides.)

Discussion of symposium by Lowell S. Goin, M.D., Los Angeles; A. Ludwig Lindberg, M.D., Los Angeles; and Paul E. McMaster, M.D., Los Angeles.

RECESS

Election of officers and business meeting.

⁂

Second Meeting—Bridge Room

Wednesday, May 27, 8:30 a. m.

134. *Roentgen Pelvimetry in Four Hundred and Fifty-Three Cases of Suspected Dystocia*—Clayton R. Johnson, M. D., 602 East Beverly Boulevard, Whittier.

Roentgen pelvimetry is shown to be a practical procedure in cases of suspected dystocia. The normal findings are shown as well as the findings in practically all known types of diseased pelves. Cephalopelvic disproportion is a comparatively uncommon condition and much less frequent than suspected. (Lantern slides.)

Discussion by Wilbur Bailey, M. D., Los Angeles.

135. *Treatment of Lymphomatoid Diseases—Hodgkins and Leukemic Types*—Henry J. Ullmann, M. D., 1520 Chapala Street, Santa Barbara.

Radiation therapy only effective treatment known today. Small frequent doses with amount and frequency adapted to immediate condition of patient essential. Details of method and effects produced. Good clinical judgment essential to proper dosage. (Lantern slides.)

Discussion by Irving S. Ingber, M. D., San Francisco.

136. *Deformities of the Ventricles in Proved Brain Tumors* — Robert S. Stone, M. D., and Fritz Schulze, M. D., University of California Hospital, San Francisco.

The deformities of the ventricles are not always exactly what one would expect from the size and position of any given tumor. Edema and swelling of the brain on the affected side causes as much of the trouble as the tumor itself. In the present paper, we have reviewed the type of deformity shown with deformity of the various regions.

Discussion by Ray A. Carter, M. D., Los Angeles.

RECESS

Meeting of Pacific Roentgen Club.

⁂

Third Meeting—Bridge Room

Wednesday, May 27, 2 p. m.

SYMPOSIUM ON NONTUBERCULOUS LESIONS OF THE CHEST

This will be a joint meeting of the following sections: Medicine, Surgery, and Radiology.

The program of this joint meeting is printed under the fourth meeting of the General Medicine Section. (See page 316.)

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XII

UROLOGY SECTION*

Thomas E. Gibson, M. D., *Chairman*
450 Sutter Street, San Francisco

Adolph A. Kutzmann, M. D., *Secretary*
1930 Wilshire Boulevard, Los Angeles

First Meeting—Bridge Room

Tuesday, May 26, 8:30 a. m.

137. *Chairman's Address: The Present Status of Renal Sympathectomy*—Thomas E. Gibson, M. D., 450 Sutter Street, San Francisco.

The anatomy and physiology of the nerves of the kidney are portrayed. An appraisal is made of the extensive literature on experimental renal denervation. The present status of renal sympathectomy is evaluated from the clinical standpoint, with indications and end-results. Sixteen personal cases are reported. (Lantern slides.)

138. *Unusual Anomalous Ureter*—Henry A. R. Kreutzmann, M. D., 2000 Van Ness Avenue, San Francisco.

Report of a case discovered postmortem in which a second ureter on the left side was found dilated with urine and containing calculi. This ureter ended in the tissues near the vagina on the left side with no apparent external orifice. A discussion of the embryology which is the probable cause of this unusual abnormality.

139. *A Few Suggestions as to Cause of Symptoms in Pyelonephritis* — W. W. Cross, M. D., 1624 Franklin Street, Oakland.

The normal tissue of the bladder, ureter and kidney pelvis, also the kidney substance. This will then be followed by the normal tissues after distending them with fixing fluid.

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* E. F. Chamberlain, M. D., San Diego, and Joseph A. May, M. D., San Diego, will act as monitors for the Urology Section.

From postmortem findings and biopsies an attempt is made to trace the changes in the tissues that follow during the course of development of pyelonephritis and evaluate the changed structure as the cause of symptoms and the alterations which give rise to the change found by the x-ray.

The majority of the slides are in natural color. Most of the sections have been stained with Mallory's Triple Stain.

140. *Pyelonephritis with "Clear Urine"* — James R. Dillon, M. D., 301 Medico-Dental Building, 490 Post Street, San Francisco.

Frequent tendency to neglect to make a more thorough examination of the urinary tract in vague septic conditions where the centrifuged urine shows no pus and no gross evidence of bacteria. Case reports, diagnosis, etiologic factors, treatment. (Lantern slides.)

141. *The Treatment of Acute and Subacute Pyelonephritis* — Robert V. Day, M. D., 1913 Wilshire Boulevard, Los Angeles.

The time-honored and orthodox, expectant and conservative treatment of acute pyelonephritis is frequently time-wasting as well as apt to accomplish nothing in the way of prevention of future attacks. Properly and accurately placed indwelling ureteral catheters of sufficient diameter, will, in a large percentage of cases, cut short the attacks and tend to prevent recurrences in many instances.

Discussion of the above papers by Lloyd R. Reynolds, M. D., San Francisco; Frank S. Dillingham, M. D., Los Angeles.

142. *Ureteral Calculi*—Dozier H. Gibbs, M. D., 1256 Roosevelt Building, 727 West Seventh Street, Los Angeles.

This paper deals with the actual management of ureteral calculi in forty-six cases seen in private patients during the past five years. Short case reports and lantern slides of illustrative and unusual cases.

Discussion by Lloyd E. Kindall, M. D., Oakland; Burnett W. Wright, M. D., Los Angeles.

RECESS

Election of officers and business meeting.

⁂

Second Meeting—Bridge Room

Wednesday, May 27, 2 p. m.

143. *A Common Industrial Accident to the Urethra*—Edward W. Beach, M. D., 306 Medico-Dental Building, 1127 Eleventh Street, Sacramento.

The "straddle" injury should hold interest for the urologist who is concerned, because the urethra is frequently involved in variant degrees contingent upon the nature of the accident as well as the presence or absence of preexisting strictures. It also concerns the industrial surgeon to whom the unfortunate first applies for relief. Last, but not least, the insurance carrier is concerned because they pay the bills.

This article treats of a series of these "straddle" injuries coming under the author's observation during the last ten years. An attempt is made therein to stress certain pertinent anatomical factors. Treatment seeks to maximum functional results with a minimum of conservative surgery and hospitalization.

Discussion by Jay J. Crane, M. D., Los Angeles; Miley B. Wesson, M. D., San Francisco.

144. *Does Transurethral Resection Require as Exacting Preparation as Prostatectomy?* — Herman C. Bumpus, M. D., and Ben D. Massey, M. D., 112 North Madison Avenue, Pasadena.

The importance of preoperative preparation in the prevention of complications following prostatectomy has been clearly demonstrated. That the usual complications following transurethral resection can be as accurately attributed to faulty preparation seems doubtful. When such complications are studied they will be found to result usually from errors of omission either during or after operation. This being the case, a less exacting preoperative preparation seems indicated when resection rather than prostatectomy is contemplated.

Discussion by H. A. R. Kreutzmann, M. D., San Francisco; J. C. Negley, M. D., Los Angeles; Albert M. Meads, M. D., Oakland.

145. *Primary Carcinoma of the Epididymis*—James A. May, M. D., 2001 Fourth Street, San Diego.

A brief summary of the few cases of primary carcinoma of the epididymis heretofore reported is given and the rarity of the condition discussed briefly. In the case studied, the findings at operation, the pathologic report of the specimen, the subsequent course of the case under deep x-ray therapy, the estimations of the hormonal content of the urine, and the autopsy findings are reported. Slides of the gross specimen and photomicrographs will be shown.

Discussion by G. Franklin Farman, M. D., Los Angeles; Thomas E. Gibson, M. D., San Francisco.

146. *Bilateral Renal Hypernephroma* — Lewis Michelson, M. D., 434 Medico-Dental Building, 384 Post Street, San Francisco.

(1) Rarity of bilateral type—not over ten cases reported in the literature. (2) Discussion as to probability of one tumor being metastatic. (3) Finding of bilateral tumors stresses the necessity of complete urologic investigation, including bilateral ureteropyelograms. (4) Report of case; lantern slides showing gross pathology, microscopic pathology, and ureteropyelograms.

147. *The Treatment of Cancer of the Kidney: Its Present-Day Status and End-Results* — Charles P. Mathé, M. D., 450 Sutter Street, San Francisco.

This paper considers present-day methods of treatment, including nephrectomy, irradiation, etc. Study of end-results obtained in patients treated over a period of twenty years reveals that nephrectomy is the treatment of choice. Cures are admittedly small, but these can be increased by early diagnosis and by employment of certain technical surgical points.

Discussion by Sidney Olsen, M. D., San Francisco; Lionel P. Player, M. D., San Francisco; Wirt Dakin, M. D., Los Angeles.

148. *Evidence of Embryologic Predisposition to Prostatic Malignancy*—Roger W. Barnes, M. D., 707 Medico-Dental Building, Los Angeles, and B. M. Harrison, Ph. D., Los Angeles. (By invitation.)

The prostatic tubule Anlagen of the eight centimeter human embryo begin as solid epithelial evaginations from the urethral mucosa. This development is symmetrical in the middle lobe, more irregular in the lateral lobes, and very irregular in the posterior lobe. This corresponds to the occurrence of carcinoma in these lobes.

Discussion by B. H. Hager, M. D., Los Angeles; Nathan G. Hale, M. D., Sacramento.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section (Adv. pages 2, 4 and 6).

CALIFORNIA MEDICAL ASSOCIATION

ROBERT A. PEERS..President
EDWARD M. PALLETTE..........................President-Elect
FREDERICK C. WARNSHUIS..
Secretary-Treasurer and Associate Editor for California

STATE AND COUNTY SOCIETY ACTIVITIES

COMMITTEE RESPONSIBILITIES

Committee Members, Attention!

A committee is defined as: "A body of persons appointed or elected to consider, investigate, or take action upon, and usually to report concerning some matter or business."

This Association has several standing and special committees created by the by-laws, House of Delegates, or the Council. The by-laws, or a resolution, sets forth the duties and assignments made to these committees. They report from time to time to the House of Delegates. Because committees of organizations similar to ours so very frequently exist and function in name only, many facetious remarks have been made concerning committees. A common definition is: "A group of members among whom the chairman as a rule is the only active worker." Committee appointment entails a very definite responsibility, and committee membership should not be accepted unless the appointee seriously accepts the responsibility and is willing to discharge his duties.

Our Association records reveal that exceptionally good work has been accomplished by some of our committees. Again the same records show that other committees have done nothing and have never conferred. Ours is a great State with vast areas. Committee members reside in areas that are distant to each other by hundreds of miles. For committeemen to meet requires travel of long distances and contribution of one to two days of time away from practice. This important fact is appreciated and undoubtedly is the reason why some of our standing committees have held no conferences. In that respect California is different from many other states, where committeemen in one or two hours' travel by automobile can meet in a central place.

However, our Council is desirous of stimulating committee work and overcoming physical obstacles in so far as possible. Our committees are *all important ones.* They are composed of some eighty selected members. The Council feels that they can, by the exercise of their judgment, make valuable recommendations that will undoubtedly be most valuable and helpful in reaching satisfactory solution of problems as well as planning for the future. The House of Delegates and the Council are desirous of securing their aid, and to that end the following action has been recorded.

The State Secretary has been instructed to arrange a general conference of all committee chairmen and members in Coronado on May 24, at 2 p. m., the Sunday preceding our annual session. At this conference some of our major Association problems will be presented. Following this brief conference, each committee chairman and his committee members will be expected to adjourn to suitable quarters and hold a committee meeting for discussion of committee questions and the drafting of a report and recommendations to the House of Delegates or the Council. The hotel bills for one day of each committee member in attendance at this conference and his committee meeting will be reimbursed to him by the Council, thus compensating him for the extra day of hotel expense. A notice of this conference will be mailed to each committeeman on May 1 as a personal reminder.

The Council trusts that in this way greater committee activity will be evidenced and, naturally, that our Association will benefit materially by reason of enlisting these members in a more active rôle. The urgent request is made that all committee members arrange to attend this conference.

* * *

PRE-CONVENTION BULLETIN

The May issue will contain the pre-convention bulletin. In it will be found the reports of your officers, special and standing committees. These should be read not only by every delegate, but by every member. By reading them an insight will be gained of the activities of the Association, its policies and problems. There can be no sound solution of a problem without a clear understanding of its nature and all that is involved. Solutions are necessary, and members must aid in bringing about sound solutions. Therefore, read these reports and discuss them with your delegates in order that delegates may reflect your wishes and judgment.

The more vocative members, the more responsive results will be evidenced by the House of Delegates.

* * *

PRINCIPLES OF MEDICAL ETHICS

Physicians come and go. Physicians do forget, often unintentionally. Nothing relating to professional conduct has ever been written that so fully sets forth, in terse form, the rules of professional conduct as do the Principles of Medical Ethics adopted by the American Medical Association.

Because physicians forget, and because, regrettable as it may seem, many physicians have never read these principles and, lastly, because young men are just entering practice and that it behooves them to be guided by these principles, one or more chapters will be reprinted in succeeding issues. Read them—observe them.

PRINCIPLES OF MEDICAL ETHICS

Chapter I

In General

THE PHYSICIAN'S RESPONSIBILITY

Section 1. A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.

GROUPS AND CLINICS

Sec. 2. The ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual. As a group or clinic is composed of individual doctors, each of whom, whether employer, employee or partner, is subject to the principles of ethics herein elaborated, the uniting into a business or professional organization does not relieve them either individually or as a group from the obligation they assume when entering the profession.

Chapter II

The Duties of Physicians to Their Patients

Section 1. Patience and delicacy should characterize all the acts of a physician. The confidences concerning individual or domestic life entrusted by a patient to a physician and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the confidences entrusted to him as a physician, of a communicable disease to which the healthy individual is about to be exposed. In such a case the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

* * *

AS OTHERS SEE AND APPRAISE OUR JOURNAL

By Council action, officers and trustees of the American Medical Association and delegates to the American Medical Association have been placed on our mailing list. Each month they receive a copy of our Journal and, therefore, these recipients are provided with authentic facts regarding our Association and State. It is hoped that clearer understanding and cordial consideration will obtain.

We quote some of the comments that recipients have volunteered. Names are omitted for obvious reasons:

Washington: "I shall be pleased to receive it, as I know it to be a very valuable publication."

New Jersey: "At a meeting of our trustees, endorsed your resolution."

Illinois: "I am reading your journal with interest, and find much commendable material in it. It is a fine idea to keep the delegates posted on the problems of different states."

Iowa: "I have found much interest in it. It will help us to appreciate the many facts of California's problems."

Pennsylvania: "California has been forced by local influences to aggressively meet a radical element not experienced in any other state. Your experience is most valuable to those of us who have impending similar problems. For these reasons I welcome the opportunity to observe your technique."

Connecticut: "I shall endeavor to absorb the viewpoint of my former confrères on the Pacific Coast and I shall certainly be interested in their experiments."

Georgia: "I have received two numbers, which I have read with much interest and pleasure."'

Pennsylvania: "Find it to be of high grade in every particular. I can learn much about western medical economics."

Wisconsin: "I have read with pleasure and appreciate the receipt of your very excellent publication."

Virginia: "May I congratulate you for this most excellent publication. It will be a great addition to my library."

Nebraska: "I shall be glad to watch your current events."

Indiana: "It is a very excellent publication and contains a large amount of valuable material."

Iowa: "I wish that the officers of all state associations would concern themselves with such matters. Your publication is a credit to the profession of California."

Tennessee: "I have already obtained valuable information from the two copies received."

Ohio: "I read your journal from cover to cover, and it is good."

Michigan: "Thanks. It will be interesting to hear what the trustees have to say."

Texas: "I certainly am fixed in my opinion that the officials of the American Medical Association should not assume to represent the medical profession of this country except and until it is a fact that their views coincide with the expressed views of the House of Delegates."

Tennessee: "Appreciate your sending me a copy."

Illinois: "I personally approve."

Our thanks to these men who acknowledged receipt of our Journal.

* * *

PLAYING THE GAME

In yesterdays the cheating poker player was shot, the cattle rustler was hung, the deserting soldier met the firing squad. Drastic measures, it is true, but in those yesteryears they were invoked against all who failed to play the game on the square.

It is equally requisite to play the game square today, be it poker, golf, business or professional practice of any branch of the learned profession, or social and political activities. Infractions are dealt with, but not with the noose or bullet. Civilization has supplanted them with the standards of gentlemen and the principles of *les affairies.*

There are some today who ignore these principles to their own very great detriment and indirectly to the detriment of and reflection upon their fellow practitioners. In their quest for income, sometimes under financial stress, many times thoughtlessly and by some intentionally, these principles and standards are violated. There is evidenced underbidding in fees, contract practice is engaged in, services for a given sum is rendered to a group or lodge, solicitation of patients is resorted to, and unfair unethical competition is engaged in—these violators are not playing the game. They no longer merit their degree or license. There is a blot and blemish on their career. They forfeit their right to honorable recognition and personal respect. They have "sold out" for a price and sacrificed principles. There can be, there is no justification for their action. They place themselves amenable to present penalties just as did their ilk in yesterdays, when the noose and the bullet meted out punishment. Ere it be too late and yielding is a temptation, the advice is given to "Stop, look, and listen," and if erring to repent and play the game on the square.

* * *

IMPARTING CALIFORNIA'S PROBLEMS AND POLICIES TO EASTERN COLLEAGUES

There has been, and still is, much misinformation, lack of information, and misunderstanding in the minds of many eastern colleagues regarding medico-economic conditions in California. The underlying reason is that very few of those living beyond the Rockies have a true conception of existing conditions, and with the possession of a few superficial facts and some distorted facts opinions have been voiced and unjustified criticism advanced.

One mid-state journal, in making comment, referred to us as "California Pollyannas"! Even in official circles there have been misrepresentations that have reflected some maliciousness and personal malice. Individual opinions, not always representative, expressed in nonofficial correspondence, have been employed as grounds for eastern and official opinions pertaining to our organization in California. In the past two years there have been received only a very rare and occasional request, addressed to the Council, constituted officials or representative committees, for official information.

The Council has determined that this condition shall no longer obtain. Steps have been taken to disabuse eastern minds from their uninformed attitudes. By Council action, California and Western Medicine will be sent each month to the American Medical Association trustees, members of the American Medical Association House of Delegates, and certain state medical officers. An exchange copy has for many years been sent to editors of state medical journals. One recipient from Iowa has replied: "I think sending this journal to all members of the House of Delegates will help them appreciate the many facts of California's medical problems." Similar replies have been received from other national delegates. The sincere hope is expressed that the action of our Council will go far in correcting wrong impressions and will deter others from formulating opinions and attitudes that are not based on facts.

The members of the California Medical Association are endowed with the average, and possibly more than the average, of good judgment that begets sound opinions and policies. They claim ability to analyze existing conditions and to formulate policies that will best meet those conditions. They are not without idealism. They embrace and applaud the fundamentals of organized medicine as they have been advanced in this nation. Their allegiances and motives require no apologies. They ask that they be understood and that they be not misrepresented. This constitutes the reason for the sending of their official publication to those who constitute their national governing body and so cause them to learn that California is not reactionary.

The problems on the Pacific Coast—California, Oregon, and Washington—are vastly different from those on the Atlantic Coast and of the intervening states. To those colleagues who reside in the East the assurance is given that their colleagues on the western coast are true to the traditions of the profession and that they earnestly seek to cause them to conform to the existing actualities of their immediate domain.

ANNUAL PROGRAM

Elsewhere in this issue the program for our annual session is printed. Please refer to it. Note the titles of papers and speakers. Observe the features, exhibits, entertainment, and all the other details. Having done so, ask yourself if you can afford to miss attending and forego embracing this opportunity for personal profit. Plan to attend.

The members of the San Diego County Medical Society urge you to accept their cordial invitation to attend and enjoy their hospitality. Ample and satisfactory hotel accommodations are available in San Diego, but you must write for reservations. Do so today.

An added attraction is the San Diego Exposition and its Hall of Medical Science. Special, reduced admission rates to the Exposition will be granted to our members. You will want to visit the Exposition.

All in all considered, attendance at our annual session, a visit to the Exposition, mingling with your fellows, and participating in the social functions, will more than repay you for your time. Plan to attend. Write for your hotel reservations.

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REDUCED RAILWAY FARES

Arrangements have been made whereby members going by train to the annual session in Coronado may secure reduced railroad fares.

To secure these reduced rates *send your request and a self-addressed stamped envelope* to the State Secretary. A certificate will be mailed to you promptly. Present this certificate to your ticket agent when purchasing transportation. This certificate is necessary to secure reduced rates.

The following information comes from the railway passenger department:

ROUND-TRIP RAIL CONVENTION FARES AND ARRANGEMENTS

Ticket agents of principal rail lines in California, on presentation and surrender of identification certificate, will sell round-trip tickets to San Diego costing approximately one and one-quarter cents per mile, which is less than the first-class one-way fare. Tickets will be sold from May 20 to 28, inclusive, and return limit will be June 7. Stopovers allowed. If longer return limit is desired, consult railroad ticket agent at San Diego prior to June 7.

Following are examples of fares to San Diego, and illustrate the extent of reductions.

From	One-Way First Class	One-Way Coach	Convention Round Trip (85%)	Ten-Day Round Trip Coach	21-Day Round Trip First Class
San Francisco	$18.59	$12.54	$15.85	$22.58	$24.85
San Jose	17.19	11.61	14.65	20.90	23.00
Los Angeles	12.79	8.67	10.90	15.61	17.20

* * *

ENDOWMENTS

In the March issue, under the caption of "I Give and Bequeath," the suggestion was made that members give serious consideration to providing bequests to an Association Endowment Fund. The principal of the bequest to remain intact in perpetuity and in memory of some relative or for some specific purpose. The investment earnings to be credited to the Association's annual income and to be expended for the expansion of Association activities.

In the same issue Editor Kress enlarged upon this proposal and advanced very pertinent reasons as to why bequests should be made to an endowment fund for our Association. It is hoped that the two comments were read and not forgotten. The wish is that favorable response was inspired and that members who are financially able took the necessary steps to legalize bequests. It would be a most pleasing experience to receive such a contribution and gift ere our annual meeting in May. Surely, there are some who can tender such a bequest or gift with no financial embarrassment. To such the appeal is made to respond in order to initiate this endowment fund and inspire others to follow their example. The central office trusts that you will respond.

ON RESOLUTIONS AND REPORTS TO BE SUBMITTED AT THE ANNUAL SESSION*

Instructions to Reference Committees and Rules Governing Introduction of Resolutions and Reports in the House of Delegates

Enactment: The House of Delegates creates the following procedure and rules governing the introduction of resolutions and reports of officers and committees and their consideration by the Reference Committees of the House of Delegates.

Introduction of Resolutions:

1. All resolutions introduced in the House of Delegates *must* be presented in triplicate and signed.

2. Delegates contemplating the introduction of resolutions will expedite the deliberations if such resolutions are sent to the Association's secretary thirty (30) days before the House convenes. They will be printed in the Pre-Convention Bulletin for the advance information of delegates.

3. In presenting a resolution the delegate shall not engage in any introductory comment or argument. He shall read only the context of the resolution. The speaker will then refer it to the proper Reference Committee, if the resolution is in order, and the secretary shall make every possible effort to place copies of the resolution in the hands of each member of the House of Delegates before the next meeting of the House.

4. The introducer and any delegate interested in a resolution should appear before the Reference Committee to present facts and arguments. Further discussion is then to be deferred until the Reference Committee submits its report and recommendations to the House of Delegates.

Reference Committee Procedures:

1. Reference Committee chairmen will be given a portfolio containing a copy of all resolutions, reports, or matters referred to their committees at the close of each session of the House of Delegates.

2. Reference Committee chairmen, before the adjournment of each session of the House of Delegates, shall announce the time and place of the meeting of their committees.

3. Delegates are requested to advise Reference Committee chairmen of their desire to appear before a committee and obtain an appointment.

4. Reference Committees will review and consider each resolution, report, and all matters referred to the committees and may approve, disapprove or amend any offered resolution or offer a substitute resolution for it.

5. The speaker, councilors, and secretary shall be available for consultation and advice, and Reference Committees should avail themselves of their services.

6. At the conclusion of a hearing and the consideration of resolutions or questions, the Reference Committees shall observe the following procedure when reporting to the House of Delegates:

(*a*) The reports of the Reference Committees shall be in writing and signed by all the Reference Committee members present and acting. The original resolutions and questions shall be set forth in the report in their proper places.

(*b*) The committee shall briefly summarize their findings and comments on each resolution or question.

(*c*) The committee shall recommend the following action:
1. That the resolution be adopted.
2. That the resolution be not adoped.
3. That an amended or redrafted resolution offered by the Reference Committee be considered and adopted as a substitute for the original resolution.

7. The Reference Committee, to whom reports of officers and standing or special committees are referred, shall submit a written report, signed by all the members present and acting, of the committee. The following findings and comments shall be set forth in its report to the House of Delegates.

(*a*) A brief summary and comment emphasizing the outstanding features of the address or report.

(*b*) Explanation as to what the Standing Committee's recommendation entails.

(*c*) Recommending the action to be taken, namely, to approve, adopt or disapprove or amend.

8. Delegates may then make such motions or arguments, and the House of Delegates may take such action as are permitted by parliamentary rules and the Constitution and By-Laws.

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* Delegates are requested to observe these regulations that were adopted at the 1935 annual session. Particular attention is invited to paragraphs 1, 2, and 3, relating to the introduction of resolutions.

CANCER COMMISSION STUDIES

The cancer diagnostic and treatment surveys of the California Cancer Commission, published in California and Western Medicine, 1932 to 1934, are now being reprinted in convenient book form for general sale. Retail price will be 75 cents. For institutions desiring copies for distribution to students, interns, etc., the following discounts are available:

25 to 100 copies, 20 per cent
100 to 500 copies, 25 per cent
500 to 1000 copies, 33⅓ per cent
1000 copies or over, 40 per cent

Orders should be sent direct to J. W. Stacey, Inc., 236 Flood Building, San Francisco.

* * *

POSTGRADUATE CONFERENCE AT UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL

The program is announced in detail in another column. The faculty of the University of California Medical School tenders to our members, through our Committee on Postgraduate Education, this conference as its contribution and participation to our postgraduate activities. The conference is open to our members in good standing. No fees will be charged. Patients, pathologic specimens, and films will be presented. Practical application will be featured.

This opportunity should be embraced by every member who can possibly do so. Your time will be spent in a profitable manner, and you will gain much that will be helpful in your practice.

Note the date. Arrange to attend. You owe this to yourself.

The program follows:

Tuesday, April 21

9–11—Obstetrics and Gynecology—Frank W. Lynch and Associates.
11–12—Applied Anatomy—The Vertebral Column—John B. deC. M. Saunders.
2–4—Newer Procedures in Chest Surgery—Harold Brunn and Associates.

Wednesday, April 22

9–11—Medicine—William J. Kerr and Associates.
11–12—Undulant Fever and Plague—Karl Meyer.
2–4—Newer Orthopedic Procedures — LeRoy C. Abbott and Associates.

Thursday, April 23

9–11—Pediatrics—Francis S. Smyth and Associates.
11–12—Clinical Pathological Conference—Charles L. Connor and Clinical Staff.
2–4—Museum, Library, Laboratory.

Friday, April 24

9–11—Surgery—Howard C. Naffziger and Associates.
11–12—Traumatic Injury to Chest and Abdomen—George K. Rhodes.

MINUTES OF THE EXECUTIVE COMMITTEE

1. The scheduled meeting of the Executive Committee for March 7, 1936, was called to order by Chairman Karl L. Schaupp in the home of President Robert A. Peers, Colfax, California, at 1:30 p. m., with the following present: President Robert A. Peers, President-elect Edward M. Pallette, Speaker W. W. Roblee, Chairman of the Council T. Henshaw Kelly, Chairman of Executive Committee Karl L. Schaupp, Chairman of Public Relations Committee Charles A. Dukes, Editor George H. Kress, Secretary F. C. Warnshuis, and General Counsel Hartley F. Peart.

2. President-elect Pallette presented to the Executive Committee the gist of a conversation that he had with the chairman of a special committee of the Bar Association dealing with expert testimony. He stated that the request had been made that the California Medical Association appoint three members of the Association to confer with that Bar committee.

Upon motion of Doctor Pallette, seconded by Doctor Dukes, the chairman of the Executive Committee was directed to appoint three members from the south to represent the California Medical Association in such conference, and that if a similar request comes from a like committee in the northern section, of the Bar Association, the chairman be authorized to appoint three members from the north to act in a like capacity. Carried.

The chairman appointed Edward M. Pallette, William L. Weber, and Glenn Myers.

3. The secretary presented a communication from the officers of the Kern County Medical Society, which contained a resolution placing that component county society on record as favoring an increase in membership dues of $2.50 per member.

Upon motion of Doctor Kelly, seconded by Doctor Dukes, the secretary was instructed to acknowledge receipt of the communication and express appreciation of the spirit in which it was offered, and refer it to the next Council meeting for action and report to the House of Delegates.

4. The secretary presented a communication from the legal counsel, Mr. Hartley Peart, relative to the financial expense entailed in appealing the *Chalmers-Francis* vs. *Dagmar Nelson* case. The chairman of the Auditing Committee recommended that an additional appropriation of $450 be made for the purpose of continuing this case before the Court of Appeal.

Upon motion of Doctor Peers, seconded by Doctor Dukes, the Executive Committee appropriated the sum of $450 additional for expenses in this legal case and instructed the secretary to send a copy of all the communications relating to this case to the officers of the Section on Anesthesiology and to use his best endeavors to obtain reimbursement of this sum in accordance with the correspondence that had been had with those representing the anesthetists. Carried.

5. The secretary presented a communication from the secretary of the Los Angeles County Medical Association relative to methods that were being employed in the enforcement of the provisions of the Narcotic Act, and citing a specific case.

Upon motion of Doctor Pallette, seconded by Doctor Roblee, the secretary was instructed to secure more information upon the subject and present the same for consideration at its next meeting. Carried.

6. The secretary presented a communication with the Williams & Wilkins Company, in which there had been raised the question of infringement of copyright of articles appearing in California and Western Medicine.

Upon motion of Doctor Pallette, seconded by Doctor Kelly, the secretary's reply was approved, and it was directed that any requests for reprinting of articles copyrighted in California and Western Medicine be subject to the approval of the editor and the secretary and the Council. Carried.

7. The secretary presented a communication that he had addressed to the president of the San Francisco 1939 Exposition and the reply received thereon. The secretary recommended the appointment of a committee representing the Association to continue these negotiations.

Upon motion of Doctor Kress, seconded by Doctor Peers, the chairman of the Executive Committee was directed to appoint three members of the Association to serve upon this committee and that they were authorized to appoint such advisory members as they deem advisable and that all the activities of the committee be without expense to the Association. Carried.

8. The secretary presented a communication from Mr. V. W. Olney, secretary of the Associated Hospital Service, Incorporated, relative to the Association's position in regard to hospital insurance, and the reply of the secretary to that letter.

Upon motion of Doctor Pallette, seconded by Doctor Roblee, the Executive Committee approved the reply as read by the secretary. Carried.

9. Upon motion of Doctor Dukes, seconded by Doctor Pallette, the secretary was instructed to secure necessary information in regard to accommodations available in all localities seeking to secure the 1937 annual meeting of the Association.

10. Upon motion of Doctor Kelly, seconded by Doctor Dukes, the secretary was instructed to arrange for the president's dinner in connection with the annual meeting

and to provide a suitable program of entertainment after the dinner, and that the Council be requested to set aside a reasonable amount for the expense of such entertainment.

11. The secretary presented a communication from Dr. Olin West, secretary of the American Medical Association, transmitting the action and reply of the Board of Trustees of the American Medical Association to the resolution adopted by the Council of the California Medical Association.

Upon motion of Doctor Roblee, the following resolution was adopted, and carried:

> WHEREAS, The reply of the Board of Trustees of the American Medical Association conveying suggestions and requests of the California Medical Association regarding the methods of the editor of the *Journal of the American Medical Association* evaded the specific inquiries of this organization and contained a great insult to the secretary of the California Medical Association; now, therefore, be it
>
> *Resolved*, That the chairman of the Executive Committee be instruced to appoint a committee of three to draft a reply to this communication and submit the same to the Council for approval at its next meeting on April 11.

The chairman appointed as members of the Special Committee, Councilors Kelly, Gibbons, and Schaupp.

12. The secretary presented a communication from Dr. J. C. Geiger of San Francisco expressing his personal opinion regarding the resolution adopted by the Council relative to the editor of the *Journal of the American Medical Association*, and upon motion duly made and carried, the secretary was directed that the letter be placed on file and that Doctor Geiger be sent a letter of thanks for his interest in the matter.

13. The secretary presented a request from the attorneys representing the appellants from the action of the Kern County Medical Society. Upon advice of the legal counsel, Mr. Peart, the following motion was made by Doctor Kelly, seconded by Doctor Peers:

That the legal representatives of the appellants be permitted to see the records of the hearing held before the Kern County Medical Society and that they be furnished with a copy of that record upon their agreement to pay for the cost thereof.

14. Upon motion of Doctor Kelly, seconded by Doctor Kress, the Executive Committee recommends that the Council adhere to its rules adopted at the last meeting in regard to the appearance of legal counsel at any appeal hearings.

15. Editor Kress presented a recommendation that the secretary arrange for a conference of chairmen and committeemen of all Standing Committees and Special Committees for the purpose of becoming more intimately acquainted with the problems of the Association and for the purpose of making recommendations, on Sunday, May 24, 1936, at Coronado at 2 p. m., and that the president and the secretary be in charge of this conference, and that notice be sent to the chairman and members of each committee urging their attendance and that the Council appropriate a reasonable sum to defray the hotel expense for one extra day for those attending this conference. Carried.

16. Dr. T. Henshaw Kelly made a verbal report for the Special Committee that was to confer with the Committee of Five, and it was accepted and filed.

On motion of Doctor Pallette, seconded by Doctor Dukes, the expenses of this committee and those of the Committee of Five in attending the meeting on February 23. 1936, were ordered paid. Carried.

17. Doctor Roblee. chairman of the Special Committee on Disciplinary Procedure, outlined certain of the details that would be contained in the report that he is to submit to the House of Delegates.

On motion of Doctor Pallette, seconded by Doctor Kelly, a recommendation was made to this committee that their procedures be presented in the form of an amendment to the by-laws of the Association. Carried.

18. Information was transmitted that the Pacific Employers' Insurance Company were continuing to issue their policies for hospital and medical care, in violation of the State Statutes.

Upon motion of Doctor Roblee, seconded by Doctor Pallette, the secretary was instructed to secure information thereon and present his findings at the next meeting of the Council. Carried.

19. Legal counsel, Hartley F. Peart, presented a communication relative to malpractice insurance. The secretary was instructed to refer this to the Special Committee on Malpractice Insurance.

20. Discussion was had relative to this Association's representation in the House of Delegates. The secretary was instructed to place this upon the docket for the next meeting of the Council.

21. President Peers of Colfax presented an official communication addressed to him from R. D. Brisbane, secretary of the Superior California Hospital Association, making certain comments upon the Association's policy relative to hospital insurance.

Upon motion of Doctor Kress, seconded by Doctor Kelly, the secretary was directed to reply to this communication and transmit the same information as was contained in the letter addressed to the Associated Hospital Service, Incorporated, and to refer the communication for further action to the Committee on Public Relations. Carried.

22. Mr. Peart reported on the present status of the *Goodall* vs. *Brite* case and imparted the information that the supervisors of Kern County and the legal representatives of eleven other counties as an *amicus curiae* had appealed this case to the Supreme Court of California.

23. The secretary presented a communication from Councilor Schoff relative to activities in certain counties directed toward the formation of local groups desiring to obtain medical services at a per monthly fee rate.

The secretary was directed to reply to this communication and to point out to the members of the local profession that such proposals were in violation of the State Statutes and that prosecution be advised through the office of the District Attorney.

24. The secretary presented a communication from Councilor Schoff relative to certain advertisements which are appearing in our official journal.

Upon motion of Doctor Pallette, seconded by Doctor Kress, the secretary was directed to make an investigation and present his findings to the Council. Carried.

25. Upon motion of Doctor Kelly, seconded by Doctor Pallette, the secretary was directed to secure the services of a court stenographer to record the actions of the Council at its meeting on April 11, when it hears the appeals of certain members from actions of their county societies. Carried.

26. Upon motion of Doctor Kelly, seconded by Doctor Roblee, the secretary was directed to call the first meeting of the Council at Coronado for 8 p. m. on Sunday, May 24. Carried.

27. Upon motion of Doctor Roblee, seconded by Doctor Pallette, the secretary was directed to schedule the first meeting of the House of Delegates for 7:30 p. m. on Monday, May 25. Carried.

28. Upon motion of Doctor Peers, seconded by Doctor Kress, the secretary was directed to arrange for a Council and county officers luncheon, Tuesday noon, May 26.

29. There being no further business, the meeting adjourned at 5:45 p. m.

KARL L. SCHAUPP, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

Teamwork.—I have heard told that out in the solitude of a great desert when a caravan is in danger of perishing for want of water they give one camel its head and turn it loose. The inherent instinct of the animal will lead him unerringly to the refreshing spring. As soon as he is but a speck on the horizon, one of the Arabs mounts and sets off in the direction taken by the liberated animal. When he in turn is just visible, another Arab mounts and follows. When the loose camel discovers water, the first Arab signals the second, the second the third, and so on until the message is relayed back and all of the party are gathered at the life-saving spring.

That is teamwork and there are many ways in which organized medicine can utilize this principle, for teamwork must characterize our Association and its constituent units.

COMPONENT COUNTY MEDICAL SOCIETIES

IMPERIAL COUNTY

It was with pleasure that the Imperial County Medical Society had as their guests at the regular monthly meeting, February 17, Dr. Robert A. Peers of Colfax, president, and Dr. Frederick C. Warnshuis, secretary, of the California Medical Association.

The following names were voted on and approved for membership: Doctors Harry P. Findley and Warren Fox of El Centro, and Donald Marchus of Winterhaven. With the admittance to the Society of these physicians, Imperial County has 100 per cent of the eligible men belonging to the Society.

At the request of Dr. Fred Gregg of Calexico, the Society took action favoring the formation of a Woman's Auxiliary.

Dr. L. C. House of El Centro was elected as delegate to the session of the California Medical Association, with Dr. Philip Hodgkin of El Centro as alternate.

It was announced that the Imperial County Tuberculosis Association would hold a chest clinic in El Centro on March 3, and that Dr. Chesly Bush, medical director of the Alameda County Tuberculosis Hospital would be in charge and that in the evening at a dinner he would present a paper on the treatment of certain chest conditions.

Dr. Robert Peers, after being presented to the Society, spoke upon the work and organization of the State Association, stated that there were 5,402 members at present and it was their desire to have every eligible physician of the State belong, and commended Imperial County for having 100 per cent of their eligible men as members. He stressed the importance of carefully choosing the delegates and to be sure that they are fully instructed as to the desires of their society. Doctor Peers also spoke about the JOURNAL, calling attention to the different departments, and made especial reference to the editorials, which voice the sentiment of the Association. He stated that we should consult the councilor of our district (San Diego, Riverside, Orange, San Bernardino, and Imperial counties), Dr. C. L. Emmons of Ontario, often and to refer problems arising to him. In closing, Doctor Peers stressed the importance of attending the State Association convention at Coronado, May 25 to 28.

Doctor Warnshuis was introduced next and spoke at considerable length on the responsibilities of organized medicine. He stated that in order to remain abreast of scientific progress it was the aim of the State Association to present to the component societies a series of postgraduate courses. He then outlined the method by which Imperial County could take advantage of this extension course. Doctor Warnshuis mentioned briefly the work the State Association is doing in presenting to the public, through the press, articles on scientific medical care and education. He mentioned the public health institutes that are being held, visualizing health by demonstration. In closing, he mentioned the scientific exhibits of the San Diego Fair, under the direction of the California Medical Association.

MERRITT C. CANFIELD, *Secretary.*

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ORANGE COUNTY

The Orange County Medical Association is a very lively organization under the leadership of our new president, Dr. John Ball of Santa Ana, who took office in January. The January meeting, held on the 7th, was our annual banquet, at which time Dr. John Ball was installed as president; Dr. Waldo Wehrly, first vice-president; Dr. C. Glenn Curtis, secretary-treasurer; Dr. C. D. Ball, librarian; and Dr. L. Cameron, editor of the Bulletin. This banquet was extremely unique in all its features, and apparently was enjoyed by everyone. There were approximately one hundred present. The guest speaker for the evening was Dean W. T. Boyce of the Fullerton Junior College. His address was entitled *Education for a New Age,* in which he outlined the trend of thought and education which is applicable to the younger generation.

A special meeting was called on February 18 at the Orange County Hospital Chapel, at which time we were honored in having our State President Dr. Robert Peers, State Secretary Dr. Frederick C. Warnshuis, and our District Councilor Dr. C. L. Emmons of Ontario. This meeting gave the visiting gentlemen a very good opportunity to speak their wishes and ambitions for the coming year. It also gave some of our own local members an opportunity to get off of their chests some of the things which were apparently disturbing them regarding our state medical set-up. This meeting was a very successful one, in my opinion, and I hope that we will be able to have such gatherings more often, as they tend to help us become better acquainted with the men and also the problems of those who are at the head of our wonderful organization.

* * *

The regular meeting of the Orange County Medical Association was held at the Orange County Hospital at 8 p. m. on March 3, The meeting was called to order by Dr. John Ball.

The first order of business was a free, frank, open discussion of the present status of the Santa Ana Valley Hospital. We were honored in having present at this meeting a representative of the Santa Ana Chamber of Commerce, who pointed out the feeling of the Chamber of Commerce that it was a shame such a well-equipped hospital should not be recognized and used more generally by the medical profession. A special committee, consisting of Doctors Harry Huffman, Hiram Currey, and Newell Moore, were appointed to work with the Santa Ana Chamber of Commerce, and if possible to outline a program whereby the Santa Ana Valley Hospital will be recognized by the American Medical Association and again take its place in the community as a health center.

Dr. Francis M. McKeever of Los Angeles gave us a very practical and vivid discussion of the fractures of the elbow-joint in children, explaining the details of the mechanics, reduction, treatment, and after-results, in such a simple manner that there should be no difficulty in handling this special type of fracture by the physicians who follow his technique in detail.

The applications of Dr. Chad M. Harwood of Santa Ana and Dr. Leonard M. Taylor of Brea were given their first reading.

Our next meeting was postponed to April 21, in order to give the members an opportunity to attend the San Bernardino Postgraduate Assembly, which is being held on April 2, our regular meeting night.

C. GLENN CURTIS, *Secretary.*

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SAN MATEO COUNTY

The meeting of the San Mateo County Medical Society was held in the banquet room of the Benjamin Franklin Hotel on February 26, Doctor Holmes presiding.

Doctors William J. Kerr, Perry Bonar, L. H. Garland, and Harold Hill were received into the Society as associate members.

A letter to the Society from the San Mateo Civic League, anent the County Department of Health and Social Service, was read by the secretary.

It was decided to ask Dr. John J. Sippy, director of public health of San Joaquin County, to address the Society at its April meeting. It was further decided to invite the Medical Society of the Veterans' Administration Facilities to attend this meeting. Doctor Benner made a motion that various civic groups and lay organizations be invited to hear Doctor Sippy at the April meeting. During the discussion which followed, the fact was brought out that the physicians of this county were as yet unaware of the *modus operandi* of the public health districts in San Joaquin County, and that at the present time it would not be desirable to invite lay groups to this meeting. The motion was put to a vote and lost. A resolution was then made to invite the Medical Society of the Veterans' Administration Facilities for a joint meeting in April.

Doctor Holmes announced that at the Board of Directors' meeting the names of Doctors Ray and Bridgman had been recommended for delegate and alternate to the State Association meeting in May. Doctor Benner made a motion that the action of the Board of Directors be approved. Motion carried.

Doctor Holmes introduced the first speaker of the evening, Dr. Robert A. Peers, president of the California Medical Association. Doctor Peers mentioned the increasing interest on the part of physicians in organized medicine, and explained many of the devices by which physicians are represented in the State Association. He outlined the function of the House of Delegates and the function and operation of the Council of the California Medical Association. He asked that members of county medical societies study problems of organized medicine, and recommended that county society secretaries send the minutes of their meetings to the secretary of the California Medical Association in order to help maintain close liaison with the parent organization. He further suggested that district councilors be invited to attend county society meetings.

Doctor Warnshuis was next introduced, who spoke on *Organizatianal Responsibilities and Activities.* He stated that the responsibilities of organized medicine were (1) to members themselves, by making available possibilities for postgraduate study; (2) education of the laity in regard to medical care, public health, and preventive medicine (accomplished through the medium of the newspapers, by means of speaking corps, and by public health institute programs); (3) legislative responsibilities in connection with such measures as hospital insurance and operation of county hospitals.

The county society expressed its unanimous appreciation to Doctors Peers and Warnshuis for their kindness in addressing the Society.

J. Garwood Bridgman, *Secretary.*

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SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was called to order by the president, Dr. Frank A. MacDonald, on the evening of February 18, in the Auditorium at Twenty-ninth and L streets, Sacramento.

A most unusual and interesting paper, from a historical and medical standpoint, was afforded the Society by the speaker of the evening, Dr. A. K. Dunlap, who spoke on the life, character, and achievements of John Paul Jones, the founder of the American Navy. The speaker illustrated his topic with lantern slides and related how the body of John Paul Jones was found and identified in a Parisian cemetery, where he had been interred in 1792 during the French Revolution. The cemetery had since lost its identity and many buildings had been erected thereon. Five shafts were sunk on the old cemetery site, and excavations were directed by General Porter, American Ambassador to France, who spent over $40,000 of his own money in the search for the remains of the famous revolutionary patriot. Five leaden coffins were found, the third of which was identified as that of John Paul Jones. His body was identified grossly through comparisons with known physical measurements of the man and comparisons with busts executed during his lifetime; and, secondly, by autopsy findings, gross and microscopic, by two French physicians, which corroborated the symptoms of his last illness, both pointing to the fact that he died of chronic interstitial nephritis. The corpse was found to be remarkably well preserved at the autopsy performed one hundred and thirteen years after his death. The body of John Paul Jones was brought to Annapolis July 23, 1905, by an American warship escorted by vessels of the French Navy. On April 24, 1906, on the anniversary of the capture of the British warship *Drake* by the decedent, impressive public ceremonies were held at Annapolis, in which President Theodore Roosevelt led the nation in paying public tribute to John Paul Jones. Through inadvertence or neglect, the casket then lay for seven long years on saw-horses in Bancroft Hall after this impressive welcome home to American soil. Then through a congressional appropriation a beautiful crypt was built and John Paul Jones' body was finally laid to rest permanently in Annapolis on January 26, 1915.

Drs. R. C. Teall and Jiro Muramoto were unanimously elected to membership in the Society. The applications of Drs. La Verne Glenn and Arthur Kahler were read for the first time.

Norris R. Jones, *Secretary.*

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SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held on Monday evening, March 9, at the Bissell Auditorium, with President Gray presiding.

Dr. William H. Leake of Los Angeles, the speaker of the evening, gave a most interesting and instructive talk upon *Bacterial Heart Diseases.* The paper was discussed by Doctors Nuzum Koefod, Elliot, McNamara, Evans, and Henderson.

Doctor Hare reported the activities of the Publicity Committee for the past month.

Doctors Freidell, Markthaler, Hamilton, Brush, and Van Paing reported their progress in formulating plans for the treatment of alcoholics, and President Gray requested the committee to continue and complete arrangements with the hospitals, and formulate a satisfactory course of treatment which would be available to all members of the Society.

Doctor Freidell announced that about June 1 the Board of Supervisors would appoint a physician to care for the indigent sick in this district. It is to be a full-time position, with a salary of $250 per month, with full maintenance for the appointee and family on the General Hospital grounds. The appointee is also to act as house physician of the General Hospital and have the supervision of the internes.

A communication from the Woman's Auxiliary to the Santa Barbara County Medical Society, in which they asked for a contribution of $75 to help further their activities, was read. After some discussion it was moved, seconded and carried, that each member of the Society south of Gaviota be assessed 75 cents.

The following resolution extending the sympathy of the Society to the family of Doctor Merrill was unanimously adopted.

IN MEMORIAM

Whereas, The Santa Barbara County Medical Society records, with profound sorrow, the death of our colleague, Dr. Edward R. Merrill, who for many years has been an active and loyal member of our organization; and

Whereas, Doctor Merrill, in his chosen profession, has commanded the greatest respect and admiration among his fellow practitioners, and his death is a distinct loss to medicine as well as to our society; therefore, be it

Resolved, That the Santa Barbara County Medical Society convey to the family an expression of the high esteem in which Doctor Merrill was held, and that we extend to them our deepest sympathy in this hour of sorrow; and be it further

Resolved, That this resolution be spread upon the minutes of the meeting of the Santa Barbara County Medical Society, and that a copy be sent to the family.

William H. Eaton, *Secretary.*

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SAN JOAQUIN COUNTY

The San Joaquin County Medical Society met in the Medico-Dental clubroom, Stockton, March 5, at 8:20 p.m., President T. C. O'Connor presiding.

The meeting was preceded by the customary supper meeting, held at the Hotel Wolf, at which there were twenty-one members and two guests present. Dr. C. V. Thompson of Lodi presented a series of *Congenital Anomalies.*

After the opening of the regular meeting, Miss Betty Perrin of the Stockton Convention Bureau invited the San Joaquin County Medical Society to attempt to secure the California Medical Association meeting for this locality in 1937.

The papers of the evening were presented by Dr. H. C. Shepardson, assistant clinical professor of medicine, University of California Medical School, who spoke on *The Treatment of Diabetic Coma.* The paper was discussed by Doctors Hull, Russell, Wever, and Lisser. Dr. H. Lisser, clinical professor of medicine, University of California Medical School, then presented a very interesting paper on *Adrenal Cortical Syndromes, with Consideration to Cushing's Disease and Adrenoblastoma of the Ovary.* This paper was extremely interesting and evoked considerable discussion.

The application of Doctor Kanagawa for membership and Dr. Thomas F. Thorp for affiliation were acted on and both were declared members of the San Joaquin County Medical Society.

There was a lively discussion from the floor concerning the limiting of speakers to a definite time. No action was taken.

The secretary urged that all members pay their assessments immediately, as those not paying would be dropped from membership in the Society and the California Medical Association as of April 1, 1936.

There being no further business to come before the Society, the meeting was adjourned at 11:45 p. m. and refreshments were served.

G. H. Rohrbacher, *Secretary.*

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SISKIYOU COUNTY

The regular meeting of the Siskiyou County Medical Society was held on January 26 at the home of Doctor Martin in Mount Shasta City. The meeting was called to order by President Dickinson.

The secretary made a report of the proceedings of the annual County Secretaries meeting at San Francisco. A vote of thanks was given him for his attendance.

A brief discussion was held on the subject of a public relations committee. It was moved, seconded and passed, that this society appoint a public relations committee. The following members were appointed by the president: Doctors Runkel, Hart, Campbell, Maguire, and Carlson.

It was moved, seconded and passed, that the offer of the State Association for postgraduate education be approved.

After the regular meeting had adjourned, a very interesting discussion of *Hospital and Medical Legislation* was given by our state assemblyman, H. B. Fulcher.

After Assemblyman Fulcher's talk, several films which had been taken by Doctor Newton, showing his technique for doing thyroidectomy, were shown.

The next meeting will be held in Yreka on March 8.

E. F. Carlson, *Secretary.*

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SOLANO COUNTY

The Solano County Medical Society had a business meeting at the Casa de Vallejo Hotel, Vallejo, on Tuesday evening, March 10, Doctor Chappell presiding.

Dr. J. Porter of Benicia was admitted to membership.

Among the matters under discussion were the following:

Treatment of children hurt while at school, and responsibility for payment of services to such children.

Postgraduate study.

Medical service to federal employees on a monthly basis.

Free examination of babies in connection with a contest being held by a local photographer.

Newspaper advertising in local papers by out-of-town drugless practitioners, and health articles being run editorially in local papers by these same men.

Ownership of x-ray films.

Dr. J. J. Hogan and Dr. Ervin Casper were elected to honorary membership in the Society.

The secretary made a report of a recent meeting in San Francisco of the Committee to Study County Hospitals.

There were two physicians reported as practicing in the county who are not members of our society, and the secretary was instructed to contact these men.

John W. Green, *Secretary.*

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TULARE COUNTY

The regular monthly meeting of the Tulare County Medical Society was held at Motley's Café on the evening of February 23, Doctor McClure presiding. Dinner preceded the meeting.

Dr. Andrew A. Love, otorhinolaryngologist from Los Angeles, presented a paper on *Hay Fever, from the Standpoint of the Otolaryngologist.* He urged conservatism as regards surgical measures for hay fever, and specific allergic therapy. A round-table of discussion followed.

Dr. L. E. Watke of Tulare, whose application was recently received, was unanimously elected to membership.

Various communications were read, among them an invitation by the Fresno County Medical Society to attend a meeting on March 3 to hear Dr. Karl Meyer of the Hooper Foundation, who is to present the subject of *Undulant Fever.*

Doctors Betts and Zumwalt were appointed a committee to arrange postgraduate clinics.

Dr. W. W. Tourtillott was appointed an additional member of the Tulare County Milk Commission.

Dr. J. C. McClure reported on the meeting of the California Medical Association Committee on Investigation of Tax-Supported Hospitals held in Fresno. Preliminary reports were presented at this meeting.

Karl F. Weiss, *Secretary.*

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VENTURA COUNTY

The regular monthly meeting of the Ventura County Medical Society was held at the Ventura County Country Club on Tuesday, January 13.

Guests were: Dr. Paul McMaster of Los Angeles, Dr. Allen of Ventura, Doctors Ditto, Paul, and Chier of the County Hospital, and Mr. King.

President Shore introduced Doctor McMaster, who presented a short paper on *Tendon Injuries.* He followed this with a number of interesting, illustrated case reports. A good discussion ensued.

Doctor Coffey called attention to the fact that the Red Cross was organizing various service stations into emergency first-aid stations. Under this plan a list of physicians' names were to be placed on a placard by the telephone. Since all members' names were not to be posted, and the fact that the attendant would probably pick the physician, makes the plan unfair. Doctor Barker moved that the County Medical Society prohibit the use of its members' names on such placards. The motion was seconded by Doctor Clark, and carried. The question was raised as to the posting of names on industrial and insurance panels. The above motion was amended, so these panels are not included.

The secretary was instructed to look into the matter of compulsory automobile insurance to cover medical and hospital bills following accidents.

Doctor Homer asked the will of the Society in regard to holding a clinic day. After some discussion it was decided to delay any further discussion until a later meeting.

A motion was made by Doctor Hendricks, seconded by Doctor Clark, that we have dinner meetings and that they be held at the Ventura County Country Club. Carried.

Program Committee: For February, Doctors Hendricks and Barker. For March, Doctors Grant Clark and Strong.

Tentative programs are to be presented one month in advance and to be approved by the members of the Society.

A. A. Morrison, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (64)

Alameda County.—George B. Brown, Karl J. Deissler, Woodburn K. Lamb, Lester B. Lawrence, Philip J. Lipsett, Thomas C. McCleave, Jr., Jany Taylor Paxson.

Butte County.—John Albert, Frank C. Reynolds.

Contra Costa County.—George C. Kelso, Henry D. Neufeld.

Fresno County.—C. P. Doane.

Imperial County.—Harry P. Findley, Warren F. Fox, Donald B. Marchus, John A. Wallace.

Kings County.—J. P. Young.

Lassen-Plumas County.—W. H. Pate.

Los Angeles County.—Wilbur A. Beckett, Arthur A. Gould, Paul F. Guernsey, A. M. McCausland, John C. McDermott, Isaac Y. Olch, Louis Phillips, B. G. Pinkerton, William Francis Quinn, Aaron Roth, Yudell K. Slocum, John O. Vaughn.

Marin County.—R. Weseman.

Merced County.—Joseph W. Dassett, Charles L. Garvin, Edith L. Mythaler.

Napa County.—Alfred Oliver.

Sacramento County.—Jiro Muramoto, Gandolfo Prisinzano, Ralph C. Teall, Joseph E. Yates.

San Bernardino County.—Clarence E. Dixon, Robert G. Williamson.

San Diego County.—Floyd M. Bond, Michael J. Hogan, Bernard E. McGovern.

San Francisco County.—Daniel E. F. Easton, Kenneth D. Gardner, William H. Heinzman, Phillips Johnson, August Spitalny.

San Joaquin County.—Alexandre Barron, Gilbert Den Dulk, Marion M. Green, G. W. Hooker, L. J. Peterson.

San Mateo County.—William W. Mills, Rowland R. Moulton.

Santa Barbara County.—Russell Gates.

Santa Clara County. — Pierce C. Barrette, David N. Roberg, Jack Vogelman.

Solano County.—M. Elizabeth Jenkins.

Ventura County.—Harry E. Barker.

Yolo-Colusa-Glenn County.—Charles W. Lund, Henry G. Potter.

Transferred (6)

Richard C. Burkett, from Los Angeles County to Napa County.

Albert P. Krueger, from San Francisco County to Alameda County.

Marie B. K. Kuhlman, from Alameda County to Merced County.

Erving L. Robers, from Orange County to San Bernardino County.

Ralph M. Smith, from Los Angeles County to Riverside County.

Thomas F. Thorp, from Humboldt County to San Joaquin County.

Resigned (1)

John F. Rickard, from San Francisco County.

In Memoriam

Collings, Harry Andrews. Died at St. Helena, March 8, 1936, age 56. Graduate of College of Physicians and Surgeons, San Francisco, 1911, and licensed in California the same year. Doctor Collings was a member of the Lassen-Plumas County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

◆

Martin, Walter D. Died at Los Angeles, February 25, 1936, age 54. Graduate of the State College of Physicians and Surgeons, Indianapolis, 1907. Licensed in California in 1926. Doctor Martin was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

Matsumura, Kiyoshi. Died at San Francisco, January 5, 1936, age 48. Graduate of the University of California Medical School, San Francisco, 1928. Licensed in California in 1929. Doctor Matsumura was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

◆

Merrill, Edward Roscoe. Died at Santa Barbara, February 13, 1936, age 79. Graduate of Harvard University Medical School, Boston, 1885. Licensed in California in 1886. Doctor Merrill was a member of the Santa Barbara County Medical Society, the California Medical Association, and the American Medical Association.

◆

O'Donnell, Earl William. Died at Los Angeles, February 16, 1936, age 45. Graduate of the College of Physicians and Surgeons, Los Angeles, 1915, and licensed in California the same year. Doctor O'Donnell was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

◆

Vowinckel, Ferdinand Wilhelm. Died at San Francisco, February 24, 1936, age 75. Graduate of Friedrich-Wilhelms-Universität Medizinische Fakultät, Berlin, 1885. Licensed in California in 1892. Doctor Vowinckel was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS[†]

What Other States Are Doing

The official journals and bulletins of sister state organizations are always perused with interest. From them we seek to glean their activities and remain informed on recorded results. We impart some of their activities singly and collectively.

Economics.—This is the chief item in most states, especially New York, New Jersey, Wisconsin, Minnesota, Michigan, Illinois, and Ohio. Many of these states have been intent on furnishing special literature and debate handbooks to debating teams.

Legislative.—Illinois, Indiana. Ohio, New York, Pennsylvania, New Jersey, Wisconsin, and Minnesota have active legislative committees and apparently are alert to defeat adverse legislation. No special legislation is being promoted. To secure informed legislators is a constant quest.

Postgraduate Education.—Each year reveals an increasing number of state organizations becoming interested in affording postgraduate opportunities for their members—Wisconsin, Michigan, Illinois, Iowa, and the Virginias, are outstanding in their well-organized courses. Michigan, with its recent several million endowments, is quite outstanding in its program.

Public Contact.—New Jersey, Wisconsin, New York, and Indiana reflect sustained programs in the education of the public in regard to public health, medical care, and legislation.

Adequate Care.—District of Columbia apparently heads the states in sponsoring a plan to provide budgeted medical care. New York City is exposing clinic abuses. Sporadic plans, more or less varied, are reported throughout the country. The Detroit plan has received no recent comment, nor have the Portland or Seattle plans. Doubt exists as to all proposed plans, except the District of Columbia, and therefore opinions are held in abeyance.

[†] The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

Hospital Care.—Little comment has appeared during the past several months on hospital insurance plans. Such plans are approved and in operation in several localities. They include x-ray and laboratory as part of hospital service. California considers them as medical care, therefore they cannot be included in hospital insurance plans. The eastern organizations have apparently overlooked this vital question and silently condone the practice of these branches of medicine by corporations. Truly, "Consistency thou art a jewel."

Committees. — Except for the committees mentioned, most committees are evidencing little activity beyond perfunctory reports. Indiana has an aggressive public relations committee. New York has an active professional and lay grievance committee. Minnesota spends large sums on legislation. New Jersey is effectual in making desired contacts. Texas rides a close herd and overlooks few bets. Illinois has several well-functioning committees. There are periodic meetings of three eastern sea coast state organizations, and some five central states have meetings from time to time to swap experiences. Colorado has evidenced extended activity during the past two years. Iowa accomplished the enactment of a basic science law. There are several southern clinical meetings of several days' duration, but are concerned only with medical questions and discussions. New England States, particularly Massachusetts, are concerned with cult legislation and state institutions. Pennsylvania goes along in an even tenor, but apparently deals well with its state problems.

Solutions.—As yet, no state has advanced any solution or plan for meeting the problem of enabling the individual to obtain medical care by independent action. Dependent individuals continue to be the wards of governmental agencies, and are without ways to regain independence.

General.—The endeavor has been made to transmit an insight to state activities. The endeavor is quite likely to be inaccurate and not a complete reflection. Possibly more action and further reaching results are being secured by states and can be exhibited by those immediately concerned. Their publications, however, give no such extended reports. This leads to the suggestion that possibly the American Medical Association might, to the advantage of state organizations, issue a monthly bulletin summarizing in considerable detail state activities with extended explanatory detail and send such bulletin to executive officers of state organizations. Such a bulletin on the "state of the nation" could be made of considerable value. This comment may be evidence of the glaring need of such a national policy. It could be made of greater value than the weekly and monthly "market letters" that are sent out by investment and business concerns. The suggestion is respectfully made. California stands ready to so report each month.

* * *

San Francisco Fair

Officers and directors of the proposed San Francisco Fair, plans for which are being completed, were contacted and the following letter is indicative of the activity that will be evidenced by this Association department.

San Francisco Bay Exposition
817 Financial Center Building
San Francisco, California

January 25, 1936.

Dear Doctor Warnshuis:

I have read your letter of January 24 with a great deal of interest.

While it is too early in our program to speak with any authority on the subject of specific exhibits, it seems inconceivable to consider an international exposition without attention to medical science.

Our immediate problem is a financial one and will probably occupy us for the next eight or ten weeks. As you can appreciate, until we know definitely the amount of money available for the exposition and its sources, it is difficult to reduce a working program to paper. However, within the next few months it is our intention to get at the matter of exhibits and special buildings, and I shall be extremely grateful for the assistance and coöperation which the California Medical Association will be able to offer. At that time, of course, we shall have a proper department and officials to take charge of such activity, and it would accord me a great pleasure to be able to talk with you personally on the subject and introduce you to those men who will have a more personal direction of such activities.

May I be in touch with you as quickly as we can discuss the matter with reasonable authority?

In appreciation of your kindness and interest, I am

Sincerely yours,

Leland W. Cutler, *President.*

* * *

Expert Medical Testimony

The subject of expert medical testimony is always of interest. A letter on the subject follows:

February 29, 1936.

Dear Doctor Warnshuis:

Your letter of February 15, 1936, containing a quotation from the case of *People* vs. *Barnes,* 111 Cal. App., pp. 605-610, has been received.

The law with respect to expert testimony consists in reality of several distinct parts, each part having its own rule. Generally speaking, the field referred to as "expert testimony" may be divided into (1) testimony by an expert concerning facts which he has discovered as the result of rendering professional services to one of the litigants in the particular case being tried, and (2) testimony by an expert stating *opinions and conclusions* based upon a set of facts about which the expert has no personal knowledge, but which are stated to him in the form of a hypothetical question by an attorney representing one of the parties.

In those cases which fall within part (1) above, the courts generally hold that a physician or other expert is in no different position than any other witness who has personal knowledge of some material fact in issue. If subpoenaed the physician must attend, and if questioned with respect to facts which are within his personal knowledge, he must answer those questions even though the subject-matter contained in the respective answers may consist of professional matters (excluding the question of privileged communications). For this sort of testimony a physician or other expert is not, *as a matter of law,* entitled to anything more than the ordinary witness fees. The case from which you have quoted, *People* vs. *Barnes,* 111 Cal. App. 605, falls within this classification. The expert there involved was a handwriting expert. He had been required to testify concerning facts which had come to his personal knowledge as the result of a previous examination of certain handwriting. He was not paid anything more than the ordinary witness fees. The defendant Barnes, who had been convicted of forgery, contended that the handwriting expert should have been required not only to testify concerning facts which he had learned as the result of a prior investigation, but that he should also have been required, for no extra compensation, to make a further scientific investigation of the documents which were presented to him in court in order that he might form and give an expert opinion as to the author of the respective writings.

The District Court of Appeal held in the portion of the opinion which you quote that experts (the court referred to physicians merely by way of example) are on the same footing as any other witness with respect to matters of fact material to a determination of the case which are within their personal knowledge. With respect to the contention of Barnes, which I outlined above, I will give the court's holding further on in this letter, as it concerns another point. An example of what the District Court of Appeal meant by the statement, "Where a doctor has made a medical examination of a party and has formed an opinion as to the physical conditions suffered, he may be required to testify as to the opinion which he has formed, based upon the facts disclosed by such examination (*Berge* vs. *Superior Court,* 154 Wash. 144), and this duty is imposed upon the witness notwithstanding that the party calling him has not compensated him for his examination as an expert or other than by the ordinary witness fees received for attendance upon the court" may be given as follows: Suppose that a physician is standing on a street corner waiting for a taxi and witnesses an automobile accident. Suppose, further, that the driver of one of the cars is a regular patient of the physician, is severely injured and is subsequently treated professionally by the physician for the injuries received in the accident witnessed, and suppose that at some later time the patient commences an action against the driver of the other automobile for damages for the injuries received. At the trial of such case the physician may be required, upon being subpoenaed, to attend the trial and give testimony concerning all of the material facts within his personal knowledge which would include (*a*) a description of the occurrence of the accident, and (*b*) a statement with respect to the injuries received by the patient. If the patient refused to pay anything other than the ordinary witness fees, the physician would not be entitled to recover anything.

Before turning to part (2), I should consider a subdivision that more properly belongs under part (1); that is, the situation where an expert is subpoenaed, is not offered anything more than the ordinary witness fee, and is requested, when on the witness stand, to make a scientific investigation of some fact which has not previously been within his knowledge. This is the state of facts which existed in *People* vs. *Barnes*, and is the second point which I previously deferred. With respect to this point the Court held in *People* vs. *Barnes* that the expert was not required to undertake the scientific examination requested. The Court said:

"The defendant insists that this witness . . . having been duly subpoenaed and in court he was bound to answer questions propounded to him, this duty being imposed upon the witness by Section 2065 of the Code of Civil Procedure. With this we agree, but the rule does not apply when the defendant has demanded that the witness perform a duty which the statute has not imposed upon him—that he go to the trouble of making a scientific investigation of the documents which were presented to him in order that he might form and give an expert opinion as to the author of the respective writings. *This is a duty which a party cannot impose upon an unwilling witness.* The rule in this state is found in *People* vs. *Conte*, 17 Cal. App. 771 (122 Pac. 450, 455, 457), where the court held that the doctor having been sworn as a witness could have been required to answer such pertinent questions as might have been put to him notwithstanding that they might call for expert testimony, but that 'We know of no rule of law which would have authorized the court to compel him to go to the trouble and perhaps some expense of *scientifically investigating* the cause of the marks on the rock for the purpose of qualifying himself to give expert testimony on that subject.' "

The rule stated in the above quotation has been the law in this state for many years. There is very little possibility that it will be altered. In *Webb* vs. *Lewald Coal Co.* the District Court of Appeal in its opinion used some language that might have been construed as overruling the rule of *People* vs. *Conte*, supra. However, appearing on behalf of the California Medical Association as *amicus curiae*, I wrote a brief in support of the respondent's petition for a hearing by the Superior Court, which resulted in the hearing being granted and a decision by that court which omitted the language used by the District Court of Appeal to which we had objected.

Considering now the problems which arise under part (2), we find that there is a decided division of authority in the various states of the United States and no determinative decision in this state. In the federal courts and in some of the state courts it is held that a physician or other expert cannot be compelled to testify as a witness to matters of *opinion* which call for the exercise of professional knowledge and skill based upon facts which are not within the personal knowledge of the witness. I quote a portion of the opinion in *Matter of Roelker*, 1 Sprague (U. S.) 276:

"When a person has knowledge of any fact pertinent to an issue to be tried, he may be compelled to attend as a witness. In this all stand upon equal ground. But to compel a person to attend merely because he is accomplished in a particular science, art or profession would subject the same individual to be called upon in every case in which any question in his department of knowledge is to be solved. Thus the most eminent physician might be compelled, merely for the ordinary witness fees, to attend from the remotest part of the district and give his opinion in every trial in which a medical question should arise."

The foregoing quotation sets forth the rule which we urged in *Webb* vs. *Lewald Coal Company* and which should be the law in this state. The Court, however, did not express any opinion upon the matter. Contrary to the foregoing rule, many state courts have held that a physician or other expert may be compelled to testify to matters of opinion calling for the exercise of professional knowledge and skill even when the facts are not within the personal knowledge of the physician or other expert concerned.

In your letter of February 15, you state that Dr. A. B. Bigler of Chowchilla was subpoenaed and in response to the subpoena appeared in court and gave testimony. You then ask my opinion with respect to his right to remuneration for such expert testimony. I cannot give you a specific answer, for, as the foregoing sketchy résumé of the law shows, a doctor's right to remuneration in excess of ordinary witness fees depends upon the type of expert testimony which he is called upon to give. If his testimony will come within part (1) above, he has no right to remuneration aside from the ordinary witness fees. If Doctor Bigler was asked to examine or investigate any fact, he could have refused to do so, but if he voluntarily made an examination or investigation he may not recover therefor (*McClenahan* vs. *Keyes*, 188 Cal. 514). If his testimony should properly be classified under part (2) above, then whether or not he is entitled to extra remuneration has never been decided in this state. I might say, however, that it has been held that if a physician or other expert voluntarily testifies to matters of opinion not based upon facts within his personal knowledge without an express contract for extra remuneration he may not recover in an action of law for his services as an expert witness (*McClenahan* vs. *Keyes*, supra), the theory announced by the Court being that:

"The witness having attended voluntarily, and having testified, cannot recover extra compensation on the theory that he was an expert witness and that his expert knowledge was involved in his testimony. There was no implied contract for the payment of extra compensation, due to the fact that the respondent was used as a witnes."

The problems arising under the general subject of expert testimony are numerous and complex. In my opinion a physician should, before appearing as an expert witness in a case, familiarize himself with the extent and scope of his legal rights for his own self-protection, even if it is necessary to secure the advice of an attorney well versed in the legal problems connected with expert testimony.

Very truly yours,
HARTLEY F. PEART.

* * *

Hospital Insurance

In accordance with the policy of providing members with information, the following correspondence is published:

ASSOCIATED HOSPITAL SERVICE, INC.
Room 341, Whitcomb Hotel
San Francisco
February 24, 1936.

Charles A. Dukes, M. D.
Chairman, Public Relations Committee.

Dear Doctor Dukes:

The "Digest of a Conference" between your committee and representatives of medical specialties, dated February 1, 1936, was discussed at a meeting of the Executive Committee of the Associated Hospital Service, Inc., February 12.

In attendance at our Executive Committee meeting, there were three medical men, representing hospitals and hospital staffs, one representative of hospital trustees, and two hospital executives, all of Class A or approved hospitals.

The secretary of our Executive Committee was directed to communicate with the chairman of the Public Relations Committee pursuant to your offer in paragraph 6, subhead *e*, our wish to avail ourselves of the advisory services offered, to the end that this corporation may obtain definite information regarding certain questions which now obstruct the inauguration of hospital service insurance plans, which have been under discussion throughout the State for a little over two years.

May we ask that the questions set forth on the attached sheet be answered by the proper authority in the California Medical Association?

Very truly yours,
(Signed) V. W. OLNEY,
Secretary, Executive Committee, Associated Hospital Services, Inc.

* * *

[Appended to letter of February 24, addressed to the chairman of the Public Relations Committee, California Medical Association.]

1. Will you kindly advise us whether the answers given by your committee will have the authority of the California Medical Association and the House of Delegates?

2. In your letter of February 4 (Digest of Conference) the conclusions of your committee were expressed in general terms ("practice of medicine by hospitals," "technical and professional division," and "hospital care and medical

care"). May we be favored with detailed information of what these terms mean, as to the specific acts or services in which hospitals may engage, in the furnishing of hospital service insurance?

3. As to the separation of *medical* care from *hospital* care, may we ask for a definition of separation of each, as they are given in hospitals?

(*a*) Does the California Medical Association hold that nursing care, under the direction of the patient's physician, is medical care or hospital care? If nursing care is held to be medical care, may the hospital charge for such care, and may such care be furnished in hospital contracts?

(*b*) Does anesthetic service, furnished by a technical anesthetist, constitute medical care when under the direction of a physician? If considered medical care, may it be furnished in hospital contracts?

(*c*) Does the service of an operating nurse constitute medical care, when assisting at an operation? If such service is considered medical care, may it be furnished in hospital contracts?

(*d*) Does the service of an operating-room nurse in preparing for an operation constitute medical care or hospital care? May such service be furnished in hospital contracts?

(e) Does the service of a laboratory technician constitute medical or hospital care when making urine and blood tests? May such service be furnished in hospital contracts?

(*f*) Does the service of a technician in making x-ray pictures and in giving barium enemata constitute hospital or medical care? May such service be furnished in hospital contracts when given under the direction of a doctor?

4. In view of the fact that the practice of medicine *is* divided into technical and professional parts (both under the professional control of the patient's doctor) in surgical operating rooms, wards and rooms, and in view of the fact that this division is ethical and legal, may we ask for a statement of specific objections to the same division into technical and professional parts in the work done in x-ray departments and pathological laboratories:

(*a*) From the standpoint of practice of medicine.

(*b*) From the financial standpoint.

5. Our proposed contracts, drawn for the consideration of medical men, excludes the sale of professional service of medical men. By professional service, we mean diagnosis and treatment furnished by medical men themselves. We understand, further, that such diagnostic and treatment services cannot be rendered by technicians, nurses, or unlicensed persons.

May we ask, then, why the furnishing of the x-ray technician's service or the laboratory technician's service is disapproved when the service of nurses and other technical assistance in other departments is not disapproved?

* * *

California Medical Association
Four Fifty Sutter
San Francisco

February 29, 1936.

Dear Mr. Olney:

This will acknowledge receipt of your communication of February 24, to which were attached five questions with subdivisions upon which you solicited answers from the Department of Public Relations of the California Medical Association for the information and guidance of your organization, and to which the following is made:

1. The policies that have been announced and published by the Department of Public Relations in regard to corporations desirous of issuing hospital insurance protection, have been approved by the Council of the California Medical Association. The Council is empowered to act for the Association. At the coming meeting of our Association in Coronado in May, a report will be submitted to the House of Delegates. If the House of Delegates approves the policies and principles formulated by the Department of Public Relations, and approved by the Council, then, naturally, those principles will have the authority and endorsement of the California Medical Association.

2. The committee holds that "hospital care" consists primarily of providing the patient a bed in a ward, a semi-private room, or a private room; the diet that has been prescribed by the attending physician and those other common services directed to the comfort of the patient, including a resident staff perhaps who may assist the attending physician in the care of his patient. Nursing care which can be had either in the home or the hospital may be provided in the hospital on a "general duty" basis or pupils in a training school may be used under supervision. This care or service gives all of the care that a nurse is permitted to do, and is given under the explicit directions of the patient's attending physician.

Medical care is defined as the diagnosis or treatment, or both, of any mental or physical ailment of a human being and includes all of these procedures, diagnostic or therapeutic, that require for their performance the possession of a valid and unrevoked license to practice medicine in the State of California. Many procedures in clinical pathology and roentgenology require this, particularly in obtaining specimens and preparing patients for proper examination, and the Committee on Public Relations and the Council have not seen fit to begin a separation of so-called technical procedures. All of them lead to diagnosis and are considered to be the practice of medicine.

The terms "technical and professional services" are not the choice of the Committee on Public Relations, but came into prominence, we believe, as a result of the Cleveland hospitals' attempts to include medical service in their contracts.

3(*a*). Nursing care, under the direction of a patient's physician, in a hospital or in the patient's home, is nursing care and is given by nurses either graduates of or pupils in, nursing training schools, and the State of California has set up standards for the education and registration of these nurses. They are not entitled to prescribe for or treat anyone except under the orders and responsibility of a licensed physician and surgeon. The State of California and the California Medical Association have not expressed any opinion as to who shall remunerate them for their services, which may be included in a hospital contract.

(*b*) Anesthetic service is the practice of medicine, in the opinion of the Committee and of the Council, and will continue to be so unless decided otherwise by the Supreme Court of California. The *Chalmers-Francis et al.* vs. *Dagmar Nelson* and *St. Vincent's Hospital* case is now on appeal in the Appellate Court of the State. Being the practice of medicine, it cannot be furnished in hospital contracts.

(*c*) What do you mean by assisting? If she is actually assisting the operating surgeon, she is doing nothing except that which he tells her to do, and she is under his direct supervision at all times. He is responsible, and can have anyone he wants, trained or untrained, if he is willing to take the risk. If the nurse is passing instruments, towels, sponges, and catgut, in what degree is she diagnosing or treating the patient's condition? We state that, in the first instance, the care is neither medical, hospital, or nursing. She is only assisting the surgeon who desires her so to do. In the second instance, again it is nursing care, perhaps, or hospital—certainly not medical. Both can be included in hospital contracts.

(*d*) The service of an operating-room nurse in preparing for an operation is certainly not medical care. All she does is "set up," as she is told to do, a table or chair, sterile instruments, towels, sponges, dressings, etc., and she may prepare the operative field under the direction of the operating surgeon. This service may be furnished in hospital contracts.

(*e*) It is held that clinical pathology is the practice of medicine and that, as set forth in (2), such service cannot be furnished in hospital contracts.

(*f*) The taking of x-ray pictures for diagnosis is considered to be the practice of medicine. The contention that these pictures will be taken under the direction of the patient's own physician is begging the question, as the hospitals as well as the physicians know that the physicians know nothing of dosage and exposure and of the substances used to obtain pictures. There are no state-approved schools for technicians, who do not occupy in any way the same status that a registered nurse does.

We hold that the application of a dangerous physical agent like the roentgen ray to the human body, either for diagnosis or treatment, is the practice of medicine, as is the administration of barium by mouth or in enemata, and the various substances given by mouth or intravenously to outline certain viscera or ducts. Practically, without casuistry, this would all be in the hands of lay persons with no standing at law and no specific standards of training whatsoever.

We would call your attention to the fact that the last legislature passed a bill designed ultimately to place the practice of roentgenology in the hands of the medical profession. This bill was the victim of a pocket veto by our Governor.

Our answer to question 2 further sets forth reasons why this type of medical service cannot be furnished in hospital contracts.

4. In view of the fact that the practice of medicine *is not* divided into technical and professional parts in the surgical operating rooms, wards, and rooms, and in view of the fact that, there being no division, except by the hos-

pitals for purposes of this argument, it cannot be said to be legal and ethical, and there is no reason to state specific objections to the *same* division of clinical pathology and roentgenology.

(*a*) The objections to the division of roentgenology and clinical pathology are all set forth in (2) and (3-*e*) as far as the practice of medicine is concerned.

(*b*) From the financial standpoint, we are not interested except in so far as the law states that corporations and lay persons cannot sell medical service.

5. You will respect the reservation that we make when we say that we prefer our opinion as to whether professional service is excluded from your contracts, copies of which we have not seen. The answer to the question in the last paragraph is wholly contained in the preceding questions, and an answer would only require a repetition of them.

Further information and answer may be obtained from the principles and resolutions adopted by the Department of Public Relations, as published in the December, January, February, and March issues of CALIFORNIA AND WESTERN MEDICINE.

The Committee on Public Relations trusts that it has answered, as satisfactorily as possible, the questions upon which you desired information.

The committee takes this as a further opportunity of reaffirming its position in regard to these controversial questions, and also assures the hospitals who are members of your association that the committee will be very willing to discuss these questions and problems at any time in order that a common understanding may be obtained and mutual interest served. To that end, we trust that you will feel free to command us whenever you feel this committee can be of service to you. In view of the policy of imparting information, it is purposed to publish your letter and this letter in the April issue of CALIFORNIA AND WESTERN MEDICINE in order that our members remain informed.

By direction of: C. A. DUKES,
Chairman, Committee of Public Relations of the California Medical Association.

By F. C. WARNSHUIS,
Director of Public Relations.

THE WOMEN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. THOMAS J. CLARK ....President
MRS. ELMER BELT......Editor and Chairman of Publicity

State Auxiliary News

The Annual Session at Coronado.—The Woman's Auxiliary to the California Medical Association meets for its seventh annual convention May 25 to 28 this year at the Hotel Del Coronado. This delightful resort is never more attractive than in spring, and recent innovations have added gaiety and pleasure to the enjoyment of its sports of the surf, sand and sun. Under the chairmanship of Mrs. Elliott G. Colby the entire membership of the San Diego Auxiliary has been working and planning to insure a happily blended combination of serious interest and merry recreation. All who attended the last meeting at Coronado about six years ago will well remember how perfectly every detail had been dealt with by the San Diego hostesses. The complete program of the Auxiliary is published elsewhere in this issue, and your inspection of its varied appeal is invited.

Our state president, Mrs. Thomas J. Clark, has placed special emphasis on simplifying the necessary organization meetings so that ample time will be left for the social functions and for individual plans. The business sessions will be held in the Yacht Club House, which promises comfortable space and quiet seclusion for the speedy dispatch of the work to be done. Mrs. Andrew J. Thornton of San Diego, the president-elect of the State Auxiliary, will attend the national convention of the American Medical Association Auxiliary, to be held in Kansas City this year, and preceding our state convention by just two weeks. She will return from it with all the information and the inspiration of the work being done by the Auxiliary organizations throughout the nation, and will thus bring us the opportunity for an excellent start to the new year's work and enable us to form plans in line with the national program. It is hoped the attendance at Coronado will set a new record in the California Auxiliary annals.

County Auxiliary Reports

Alameda County.—The Woman's Auxiliary to the Alameda County Medical Association sponsored two events during the month of February. The first was a delightful luncheon in honor of the president of the Woman's Auxiliary to the American Medical Association, Mrs. Rogers N. Herbert of Nashville, Tennessee. Mrs. Thomas J. Clark of Oakland, our state president, acted as hostess, assisted by members of the state board and by Mrs. Robert T. Sutherland, the Alameda County president. Mrs. Herbert gave a most interesting talk on the growth and the work of the Auxiliary.

The regular meeting of the Alameda Auxiliary took the form of a dessert bridge party on February 21 at the College Women's Club in Berkeley. The meeting was called to order by the president, Mrs. Sutherland, and after a short business session Mrs. Clarence Page sang a group of songs. She was accompanied by Mrs. Hayward Thomas. The remainder of the afternoon was spent at cards. Mrs. Lloyd Kindall was chairman of arrangements for the occasion, and was assisted in receiving by the members of the county board, who appeared in Colonial costumes. The party proved a complete success, in spite of the rain. The proceeds from it will be used for the benefit of the Public Health Institute to be held in the fall.

LAURA S. HENRY, *Publicity Chairman.*

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Fresno County.—The Woman's Auxiliary to the Fresno County Medical Society completed its organization in two meetings: one on December 3, held under the supervision of Mrs. William H. Sargent of Oakland, State Chairman of Membership and Organization, when plans for the new branch were begun; and a second meeting on January 7, when the constitution was read and adopted and the officers for the coming year were elected. Mrs. Guy Manson was chosen president; Mrs. Walter Weise, vice-president; Mrs. Otto Diederich, secretary; Mrs. A. E. Anderson, treasurer; and Mrs. Charles Ingram, parliamentarian.

On February 4 the group met again, and Dr. A. E. Anderson spoke on *Legislation of Interest to Us* and suggested various ways in which the Auxiliary might be of service. Some very interesting African travel pictures were also shown at this time.

MILDRED DIEDERICH, *Secretary.*

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Los Angeles County.—It was a day to honor presidents—past, present, and elect; national, state, and county—and to this end a beautiful tea was held at the Medical Association Building on February 10. We feel justified in a natural pride in our leaders in that they are all such charming people, not at all afflicted with the official mannerisms popularly misconceived to be characteristic of the typical clubwoman. Mrs. John V. Barrow, the Los Angeles County president, introduced the national president, Mrs. Rogers N. Herbert of Nashville, Tennessee, who described her journey from her home in Tennessee northward and westward, through heavy snows and subzero weather, being warmed, however, by the friendship and hospitality extended her by the various auxiliary groups along the way. Mrs. Herbert went on to say that the public is either informed, uninformed, or misinformed, and that it behooves the doctor's wife to be informed in order to sow the seeds of knowledge where they may grow and ripen rather than allow the weeds of untruth to flourish. At the conclusion of Mrs. Herbert's remarks, tea was served on tables decorated with peach blossoms. Included among the guests of honor were: Mrs. Thomas J. Clark of Oakland, the state president; Mrs. Andrew J. Thornton of San Diego, the president-elect; Mrs. James F. Percy of Los Angeles, who has served as Auxiliary president for national, state, and county organizations; Mrs. Philip Schuyler Doane of Pasadena and Mrs. William H. Sargent of Oakland, both past presidents of the California Auxiliary.

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† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Elmer Belt, chairman of the Publicity and Publications Committee, 2200 Live Oak Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Belt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editor to allocate two pages in every issue for Woman's Auxiliary notes.

It was unfortunate that the regular meeting of the Auxiliary which was to have featured an outdoor luncheon, sponsored by the Arden Farms at their model dairy in El Monte, had to be canceled due to rain. The invitation will be renewed at some future date and we shall have the privilege of inspecting one of the sources of our milk supply, a matter so vital to the health of the community.

Representatives from the Auxiliary will attend the Women's Civic Conference to be held on March 28 at the University of Southern California, a table of twenty having been reserved for the noon meeting. Mrs. John V. Barrow is a member of the Conference board, and has taken an active part in the arrangements and preparation of the program.

Mrs. Harold E. Crowe, *Corresponding Secretary.*

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Orange County.—The March meeting of the Auxiliary, held on the third of the month at the home of Mrs. Dexter Ball in Santa Ana, brought to the members a discussion by Dr. Ray C. Green of Fullerton of *The Comparative Educational Qualifications for the Different Schools of the Practice of the Healing Arts.* He gave an enlightening description of the origin of the various cults, of the meager amount of scientific training necessary for a degree in each, and the large part that superstition plays in their practice. He emphasized the need of the passage of a basic science law in California, the happy hunting ground *par excellence* for all the cults.

Mrs. Ray C. Green, our president, gave the highlights of the February State Board meeting held in Los Angeles, and spoke of the tea honoring Mrs. Roger Herbert, president of the National Auxiliary, to which Los Angeles County Auxiliary had kindly invited our members. Mrs. K. H. Sutherland was appointed chairman of the newly organized Welfare Committee. Mesdames E. L. Russel, John Ball, and G. W. Olson comprise the Nominating Committee selected to report at the April meeting. The Auxiliary voted to become an associate member of the Public Health League of California and to coöperate with it in every way possible. Hostesses who aided Mrs. Ball in serving tea during the ensuing social hour were: Mesdames E. F. Bruning, P. B. Gillespie, Newell Moore, G. I. Sellon, and Harry Zaiser.

Jessie Q. Raitt, *Publicity Chairman.*

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Sacramento County.—The regular meeting of the Woman's Auxiliary to the Sacramento Society for Medical Improvement was held on January 28 at the home of Mrs. C. B. McKee, with Mrs. Frederick N. Scatena, the president, presiding. The president announced that the Board had appointed Mrs. E. T. Rulison as chairman of the Nominating Committee. Mrs. Frank Krull was then elected to serve with her, and these two were instructed to choose a third member for the committee. Mrs. Scatena then invited all members of the Auxiliary to a reception to be held February 5 at the Claremont Country Club in honor of our national president, Mrs. Rogers N. Herbert of Tennessee. Mrs. H. M. Kanner then presented Mrs. Laurence Wilson, who gave a most entertaining and informative talk on English and Irish women. Mrs. McKee, assisted by Mesdames Frank Krull, W. W. Cress, A. A. Stem, W. J. Teeney, J. D. Lawson, and George Walsh, served dainty refreshments during the social hour which followed.

Sarah L. Brendel, *Corresponding Secretary.*

NEVADA STATE MEDICAL ASSOCIATION

R. O. SCHOFIELD, Boulder City	President
C. E. SECOR, Elko	President-Elect
HARRY W. SAWYER, Fallon	First Vice-President
W. H. FROLICH, East Ely	Second Vice-President
HORACE J. BROWN, Reno	Secretary-Treasurer and Associate Editor for Nevada

COMPONENT COUNTY MEDICAL SOCIETIES

CLARK COUNTY

The regular monthly meeting of the Clark County Medical Society was held February 29 at the Six Companies' Hospital at Boulder City. Dr. R. O. Schofield, president of the Nevada State Medical Association and chief surgeon of the Six Companys' Hospital, was the host at a splendid dinner given for the members of the local society and for a group of visiting physicians.

The dinner was followed by a discussion, with a motion picture study of amebiasis dysenteriae and a lantern slide study of the kidney structure and function by Doctors John Barrow and A. E. Belt, respectively, of Los Angeles. Doctor Barrow's discussion stressed the importance of the true diagnosis of amebiasis dysenteriae and the differentiation between this organism and Ameba coli. He also stressed the great significance of the correct dosage and method of administration of emetin in the treatment of amebiasis and liver abscess due to this organism.

Doctor Belt briefly and concisely pointed out the recent work done on the kidney filtration and absorption theory, together with a comparative study of the specific gravity fixation tests, the urea, non-protein nitrogen and phenolsulphonephthalein kidney function tests and their significance. Both discussions were presented forcefully and to the point.

In addition to the members of the Society, several guests from Los Angeles and Boulder City were present. Doctor Schofield's dinner was greatly enjoyed and appreciated by those present.

A. Blinstrub, *Secretary.*

Malpractice Liability of Physicians for Anesthetizing a Minor Without Consent of Parents.—The plaintiff, twenty years of age, injured his ankle. He was taken to the defendant, a physician, for treatment, neither parent accompanying him. Without obtaining the consent of either parent, but with the minor's consent, the defendant anesthetized him with ether and proceeded to "set the ankle" and apply a cast. The plaintiff and his father subsequently sued the defendant in the city court of New York, Bronx County, to recover damages for alleged malpractice and for an assault predicated on the theory that the defendant anesthetized the plaintiff without obtaining the consent of his parents.

Where there is an emergency which endangers the life or health of a patient, or where suffering may be alleviated, said the court, it is a physician's duty to do that which the occasion demands within the usual and customary practice among physicians in the same locality. To hold that a physician must wait until he has obtained the consent of a minor's parents, who may not be available, before administering an anesthetic or before giving to an injured minor the benefit of his skill and learning to alleviate pain and suffering, might result in the loss of many lives and in much pain and suffering that might otherwise be prevented. Under the circumstances in the present case, the court thought that it would be altogether too harsh a rule to hold the defendant liable because he did not obtain the consent of the father to the administration of the anesthetic. Since the defendant was confronted with an emergency, and since he obtained the consent of his patient, the consent of the father was not necessary. The court could find no evidence of malpractice and consequently dismissed the complaint. (*Sullivan* vs. *Montgomery* (N. Y.), 279 N. Y. S. 575).—*Medico-Legal News Item.*

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, Kansas City, Missouri, May 11-15, 1936. Olin West, M. D., 535 North Dearborn Street, Chicago, Secretary.

American Surgical Association, Chicago, May 7-9, 1936. Vernon C. David, M. D., 59 East Madison Street, Chicago, Secretary.

Arizona State Medical Association, Nogales, April 23-25, 1936. D. F. Harbridge, M. D., 15 East Monroe Street, Phoenix, Secretary.

California Medical Association, Coronado, May 25-28, 1936. Frederick C. Warnshuis, M. D., 450 Sutter Street, San Francisco, Secretary.

California Tuberculosis Association, Sacramento, April 2-4, 1936. Mr. W. F. Higby, 45 Second Street, San Francisco, Executive Secretary.

National Tuberculosis Association, New Orleans, April 22-25, 1936. Charles J. Hatfield, M. D., Seventh and Lombard streets, Philadelphia, Secretary.

New Mexico Medical Society, Carlsbad, May 6-8, 1936. L. B. Cohenour, M. D., 219 West Central Avenue, Albuquerque, Secretary.

Medical Broadcasts*

The American Medical Association broadcasts over WEAF, the red network instead of the blue, as formerly, and certain additional stations of the National Broadcasting Company at 5 p. m., eastern standard time (4 p. m. central standard time, 3 p. m. mountain time, 2 p. m. Pacific time), each Tuesday, presenting a dramatized program with incidental music under the general theme of "Medical Emergencies and How They Are Met." The title of the program is "Your Health." The program is recognizable by a musical salutation through which the voice of the announcer offers a toast: "Ladies and Gentlemen, Your Health!" The theme of the program is repeated each week in the opening announcement, which informs the listener that the same medical knowledge and the same doctors that are mobilized for the meeting of grave medical emergencies are available in every community, day and night, for the promotion of the health of the people. Each program will include a brief talk dealing with the central theme of the individual broadcast.

Pacific Network—The stations on the Pacific network are KGO KPO KFI KGW KOMO KHQ KFSD KTAR.

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San Francisco County Medical Society.—The radio broadcast program for the San Francisco County Medical Society for the month of April is as follows:

Tuesday, April 7—KYA, 6 p. m.
Tuesday, April 14—KYA, 6 p. m.
Tuesday, April 21—KYA, 6 p. m.
Tuesday, April 28—KYA, 6 p. m.

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Los Angeles County Medical Association.—The radio broadcast program for the Los Angeles County Medical Association for the month of April is as follows:

Saturday, April 4—KFI, 9 a. m. Subject: The Road of Health.
Saturday, April 4—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, April 7—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, April 11—KFI, 9 a. m. Subject: The Road of Health.
Saturday, April 11—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, April 14—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, April 18—KFI, 9 a. m. Subject: The Road of Health.
Saturday, April 18—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, April 21—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, April 25—KFI, 9 a. m. Subject: The Road of Health.
Saturday, April 25—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, April 28—KECA, 11:15 a. m. Subject: The Road of Health.

Efficiency in Death Registration.—The United States Bureau of the Census, which receives copies of all birth and death certificates that are filed in California, has advised the Division of Vital Statistics that only 1.03 per cent of death certificates were queried in 1934 because of indefinite statements relative to causes of death. That bureau is most meticulous in ascertaining the true cause of death in order that its statistical tabulations may be reliable. California physicians through their efficient reporting of deaths have enabled this state to make a commendable record. With the birth certificates only one-half of one per cent of those from California were queried in 1934. It is interesting to note that Massachusetts is the only state that excelled California last year in making this enviable record in the proper filing of both birth and death certificates.

How Wide Are You?—The Right Answer Determines Weight.—Folks who have been inclined either to diet or to increase their food intake in order to achieve a certain body weight determined by height and age tables, may now take advantage of a new process developed by medical science which gives them a much wider weight range. The process, which is announced by Dr. Helen B. Pryor, research associate in the Institute of Child Welfare, University of California, discards sole height and age qualifications in favor of the bi-iliac diameter or the measurement at the crest of the hip bones.

The determination was reached in a study of two hundred football candidates at Stanford University, who averaged fifteen pounds overweight, as determined by the old standard tables and several hundred students of both sexes in California and Stanford whose bi-iliac diameter showed that at least some of them were worrying far too much about their weight problems. It was found that many children and grown-ups as well were either underweight or overweight, according to the old standards, because of existing bone structure or other factors which had no bearing on their health. In particular, many properly nourished and perfectly healthy children appeared to be underweight because they had been judged by such standards.

The new standards have been found useful in determining the nutritional needs of the individual, and in placing the proper evaluation upon the dictates of fashion and of food and diet fads.

As an example, Doctor Pryor gives a seventeen-year-old boy 69 inches tall. If his bi-iliac diameter is 26.4 centimeters, his appropriate weight should be 141 pounds. If the bi-iliac diameter is 30.4 centimeters, he should weigh 161 pounds. A number of tables have been prepared to show how the new standards should apply to both adults and children.

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* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to California and Western Medicine, 450 Sutter Street, San Francisco, for inclusion in this column.

Honor to Dr. Edward Jackson, Dean of American Ophthalmologists. — A recent letter from the Jackson Memorial Committee of the Pacific Coast Oto-Ophthalmological Society gives the following information:

"Dr. Edward Jackson passes the eightieth anniversary of his birth on March 30, this year, and some of us felt we would like to have the Pacific Coast members present him with a token of our friendship and esteem.

"We, therefore, enclose this card. Will you inscribe hereon your signature, with or without a short sentiment, and return at the earliest possible date.

"Reproductions of these sigatures and sentiments will be engrossed on the parchment, bound into an elegant volume, and presented to Doctor Jackson at the meeting of the Pacific Coast Oto-Ophthalmological Society in Del Monte."

California Medical Association Cancer Commission Studies.—J. W. Stacey, Inc., 236 Flood Building, San Francisco, has announced:

"We are just publishing the studies of the Cancer Commission Committee of the California Medical Association in a very attractive booklet, and we feel you should have copies for permanent record, and perhaps also for distribution. The price of the book is 75 cents. If you desire additional copies for distribution, the following discounts will be given on quantities:

25 to 100 copies, 20 per cent
100 to 500 copies, 25 per cent
500 to 1000 copies, 33⅓ per cent
1000 copies and over, 40 per cent

"We shall be glad to have your immediate order, as the call will be very large, and the edition is somewhat limited."

Sea Glowworm Is Carrier of Deadly Mussel Poisoning.—The organism which accounts in large part for the beautiful and spectacular displays of phosphorescence in the sea off Southern California and elsewhere, has been found by the University of California to be one of the quickest acting destroyers of human life yet discovered, the producer of the poisonous condition in mussels. This protozoa, technically known as Gonyaulax, of which there are many species, has been definitely identified as such poison source in studies conducted by Professor Charles A. Kofoid, chairman of the department of zoölogy of the University, and W. Forest Whedon of the Hooper Foundation, a part of the University's Medical School. The poison was actually extracted from the organism by Dr. H. Sommer, assistant professor of research medicine in the foundation. The work was carried on under the auspices of the James K. Moffit fund.

According to Doctor Kofoid, the organism caused the tremendous luminous display in the ocean off Southern California in 1906, during which hundreds of tons of dead bottom-living specimens of sea life were cast up on the beaches. The pelagic or surface ocean fish, on the other hand, avoid the luminous areas and the deadly protozoa generally, and thus avoid possible contamination. The mussel, however, feeds on the protozoa, and one type of common shore crustacean is also a host. Transferred to humans the poison causes a quick paralysis and a high mortality. There is no known remedy.

Mussel poisoning has been known at a number of points throughout the world for many years, but until Doctor Kofoid placed the Gonyaulax organism under suspicion several years ago, the source of the poison was unknown. His suspicions were finally confirmed in studies, just completed, of protozoa taken in the ocean waters off San Francisco.

The deadly organism appears coincident with the period of greatest poisoning, but such appearances are irregular, and the volume fluctuates widely. It has been taken off San Francisco, Pescadero, Half Moon Bay, Montara, Wright's Beach, near the mouth of Russian River, and Crescent City, California, and Brookings, Port Orford and North Bend, Oregon.

The appearance of the poison and its high potency has caused a series of drastic orders against the mussel as food in certain months of the year. Before these orders became fully effective many deaths resulted. The present identification of the poison agent now makes it possible for health authorities to issue timely warnings when the protozoa appears at any point under observation.

Dr. Robert A. Peers Nominated as a Delegate to the National Republican Convention.—Recent press dispatches included the name of Dr. Robert A. Peers in the list of nominees for delegates to attend the national convention at Cleveland, at which the nominee of the Republican Party for the presidency of the United States will be elected.

Stanley P. Black Memorial Lecture.—The Stanley P. Black Memorial Lecture for the year 1936 was held in the Stanley P. Black Memorial Hall, 65 North Madison Avenue, Pasadena, on Tuesday, March 24, at 8:15 p. m. The subject was "The Evolution of Our Concepts of the Nature and Causation of Disease," the guest speaker being Dr. Frederick P. Gay, professor of bacteriology, Columbia University College of Physicians and Surgeons.

American Medical Association Committee at Medical School.—A survey of the University of California Medical School has just been completed by the American Medical Association, in keeping with the practice of the Association to inspect every school within its jurisdiction at intervals. The inspection committee was composed of Major-General N. W. Ireland, U. S. A., retired, former surgeon-general of the United States Army, and Dr. H. G. Weiskotten, dean of the School of Medicine of the University of Syracuse and director of the hospital of that institution. The committee spent two days in its examination of the school.

American Association on Mental Deficiency.—The American Association on Mental Deficiency, composed of some five hundred educators, psychologists, sociologists, and psychiatrists, is holding its sixtieth annual meeting at the Hotel Jefferson, St. Louis, Missouri, on May 1, 2, 3 and 4. The Friday sessions will be devoted to general and sociologic aspects of mental deficiency; the Saturday sessions to psychologic and educational topics, with special stress on educational disabilities. The Monday sessions will be given over to research activities, medical aspects and administrative problems in mental deficiency.

Some of the speakers are: Popenoe on "Sterilization"; Goddard on "Social Security"; Hincks on "A National Program"; Kirkbride on "Public Welfare"; Hackbusch on "Social Service"; Vanuxem on "Education"; Berry on "Teaching Techniques"; Humphreys on "Research Problems"; and many others. Everyone interested in the mentally defective or retarded child is cordially invited to attend these sessions. The complete program may be obtained from the secretary, Dr. Graves B. Smith, Godfrey, Illinois.

Rockefeller Foundation Wants Influenza Research Material.—A request is made for assistance in influenza research by the International Health Division of the Rockefeller Foundation. Doctor Ferrell writes:

"We should appreciate it, if you would notify Dr. J. H. Bauer, Rockefeller Institute, York Avenue and Sixty-sixth Street, New York City, by collect telegram or fast mail of the occurrence of any epidemic of influenza in your jurisdiction. Any particulars as to number of cases, clinical characteristics, etc., that you can also give would be helpful.

"If an extensive outbreak should occur, it may be found advisable to send an investigator from the Division's Laboratories to study the disease first-hand and to collect material to be studied. In small outbreaks, or when a member of the staff cannot be sent, your coöperation in obtaining material from patients and in having it forwarded to our laboratories will be sincerely appreciated.

"Upon receipt of notice of an outbreak Doctor Bauer will gladly furnish suitable containers, already sterilized, together with detailed instructions for the collection and shipment of the material desired for study. He will also furnish blank forms for recording information regarding the patients."

International Union Against Tuberculosis: Meets in Lisbon in September.—The tenth conference of the International Union Against Tuberculosis will meet in Lisbon, Portugal, September 7-10, 1936, under the chairmanship of Prof. Lopo de Carvalho, president-elect of the Union. The biologic subject, "Radiologic Aspects of the Pulmonary Hilum and Their Interpretation," will be presented by Prof. Lopo de Carvalho. Among the ten countries to take part in the formal discussion, the United States will be represented by Dr. Henry C. Sweany, Medical Director of Research of the Chicago Municipal Tuberculosis Sanitarium. The report on the clinical subject, "Primary Tuberculous Infection in the Adolescent and the Adult," will be given by Dr. Olaf Scheel of Norway, and Dr. Robert E. Plunkett, Director of the Division of Tuberculosis, New York State Department of Health, will represent the United States in the discussion. The opening report on the social subject, "The Open Case of Tuberculosis in Relation to Family and Domestic Associates," will be presented jointly by Dr. Charles J. Hatfield, Director of Henry Phipps Institute, Philadelphia, Pennsylvania, and Dr. D. A. Powell, representing Great Britain. The Organization Committee of the conference has secured reductions in hotel prices and railroad fares. It has also prepared an attractive program of receptions and excursions to enable members of the conference to visit the chief anti-tuberculosis institutions of Portugal and, in addition, to see some of the most picturesque scenery of the country. Members of the Union are invited to take part in the conference without payment of a fee. Other persons may participate as "members of the conference," and application should be made through the National Tuberculosis Association, 50 West Fiftieth Street, New York. Plans for a special party to the conference may also be secured by writing to the Association.

LETTERS

Concerning federal survey of chronic diseases.

Treasury Department
United States
Public Health Service
March 7, 1936.

To the Editor:—The United States Public Health Service survey for chronic diseases is nearing a close. The most important work to be done now is making this data of valuable scientific use by getting the confirmation of the diagnoses from the family physicians. I trust that you can give us some publicity in the next issue of California and Western Medicine.

I am enclosing a brief statement and enclosure for this purpose. . . .

Thanking you for your extreme courtesy to me in the matter of this survey, I am

Yours sincerely,
Arthur Hieronymus, M. D.,
Assistant Regional Supervisor for California.

Office of Health Survey
208 Builders Exchange Building
Hobart and Webster Streets
Oakland, California

* * *

STATEMENT OF REGIONAL DIRECTOR

The United States Public Health survey for chronic diseases and disabling illnesses is nearing a close. The important work of making this data of valuable scientific use is now to be undertaken. It will be necessary in the near future for the family physician to confirm the diagnosis of every disease reported. Permission has been granted by the informant in every instance for the doctor to confidentially report on a special form to the Surgeon-General of the United States direct.

These forms are very brief and simple, requiring in most instances merely a check mark of the diagnosis in question. The doctor is not required to sign the statement. This statement will be treated as strictly confidential, used only for statistical purposes and at all times under the direct supervision of a medical officer of the United States Public Health Service, thus complying with the ethical standards of the medical profession.

The doctors will soon be receiving these forms with a letter of explanation from the Surgeon-General, and he hopes for their coöperation.

The sum of $200,000 has been set aside to pay physicians 25 cents each for the diagnoses they confirm.

It is hoped that physicians will respond promptly and whole-heartedly to the Surgeon-General's request, to the end that the reliability of the medical data may be assured.

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COPY OF FORM LETTER TO BE SENT TO PHYSICIANS

Treasury Department
Public Health Service
Washington

Dear Doctor:—The National Health Survey, intended to provide information about chronic and other illnesses, has been making good progress in your community. Among the families interviewed, the enclosed cases of illness were reported as having been attended by you. In every instance the family was asked if there would be any objection if I wrote you for further information. The fact that I am writing you means that the family raised no objection.

The enclosed form * contains the information given to the enumerator. If the information is incorrect or only partially correct, your help is solicited in correcting errors. You will note that important additional information is asked concerning the case. Obviously such information is important and reliable only when it comes from the physician who treated the patient.

Out of the total fund allotted for the study the sum of $200,000 has been set aside to pay physicians 25 cents each for diagnoses they confirm. To insure reimbursement for this service it is requested that you sign the certification in the space provided for this purpose on two copies of the enclosed invoice, insert the date in the heading, and return the first two copies together with the confirmation forms to this office. A check will then be prepared in the proper amount and sent to you as soon as possible.

Sincerely yours,
W. F. Draper,
Acting Surgeon-General.

Concerning Appellate Court decision in Kern County Hospital Case.†

Association of California Hospitals
March 4, 1936.

To the Editor:—As editor of California and Western Medicine and councilor of the California Medical Association, I wish to call your attention to the decision of the Court of Appeal in the Kern County case. There are some very interesting interpretations by the Court in this case which are of vital importance to doctors and hospitals. You are probably acquainted with these facts, but I merely enumerate them as follows:

First: The constitutional law prohibits cities and counties from making any gifts of public funds.

Second: Definition of "indigency."

Third: Responsibility of supervisors to segregate costs of various types of patients.

Fourth: The responsibility of supervisors to make accurate accounting, including depreciation, interest on investment, etc.

The political activities of the supervisors in the farm counties are particularly important, which is reflected in editorials in practically all of the San Joaquin valley newspapers. All of these editorials favor more liberal laws for hospitalization in county institutions. We sense in these editorials an inclination to publicize and distort facts to taxpayers in order to secure new laws permitting free hospitalization to all classes of the public. We have had a number of these editorials clipped and mounted, and I am having our office in San Francisco deliver some of them to the California Medical Association's office so that the officers of the Association may be familiar with some of these facts.

Very truly yours,
Association of California Hospitals.
By Mr. R. E. Heerman, President.
1414 South Hope Street, Los Angeles.

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* Owing to lack of space, H. S. forms 420, United States Public Health Service, and 42-*c*, 42-*d*, 42-*e*, are not reprinted in California and Western Medicine.

† For full opinion of the Appellate Court decision, see page 189, March issue, California and Western Medicine.

Concerning legal right of chiropractors to practice obstetrics.

Board of Medical Directors
State of California

March 10, 1936.

Yours of March 3, re chiropractors practicing obstetrics.

Association of California Hospitals
Mr. R. E. Heerman, President
1414 South Hope Street
Los Angeles, California

Dear Sir:—In reply to your query as to whether chiropractors are permitted to practice obstetrics, beg to refer you to Opinion No. 10357, rendered November 19, 1935, and Opinion No. 10357*a*, rendered February 13, 1936, wherein the Attorney-General holds that the certificate to practice chiropractic does not permit the practice of obstetrics.

Your letter specifically refers to the Alta Vista Maternity Hospital, conducted by Edward E. Shook, D. C., who is of record in our violator file. He was tried in the Justice's Court, Montebello Township, County of Los Angeles, in 1934 on a charge of violation of the Medical Practice Act. Testimony was introduced showing that Shook had confined two of the women witnesses, and performed an episiotomy on each. Reports indicate that a nurse testified she had seen Shook give pituitrin. Averell Hugh Owen, M. D., testified for the defense, and later had his license revoked for aiding and abetting an unlicensed individual. After the testimony had closed, the jury retired and, according to a report of our investigator, "had a smoke and found Shook not guilty."

We note your statement that you have requested the San Francisco office of the Association of California Hospitals to forward us advertising literature wherein Edward E. Shook, D. C., announces that he conducts a maternity home with complete obstetrical service; however, same has not yet come to hand.

Awaiting your further pleasure, believe me

Very truly yours,
C. B. Pinkham, M. D.,
Secretary-Treasurer.

420 State Office Building,
Sacramento, California.

Concerning the function of the Mental Hygiene Division of the San Francisco Department of Public Health.*

March 4, 1936.

To the Editor:—Because several cases have been in the courts that were publicized in which the Mental Hygiene Division of the Department of Public Health was mentioned and sterilization of the mentally unfit was frequently discussed, it was thought necessary to state the function of the Mental Hygiene Division of the San Francisco Department of Public Health and its attitude toward sterilization of the mentally unfit.

The statement is attached hereto.

Sincerely,
J. C. Geiger, *Director.*

* * *

The Function of the Mental Hygiene Division of the
San Francisco Department of Public Health

The principal function of the Division of Mental Hygiene is *service to parents* and to child-caring agencies in the guidance of problem children. Among the problem children coming to this Division are a considerable number of mentally deficient children and a few mentally deficient adults for whom a mental rating is asked by a responsible member of the family or by the agency in charge of the individual case. In these instances it is necessary to make as careful examination as possible as to evidence of mental defect, and where commitment is desired by the legal guardians, to present the data obtained to the Lunacy Commission for their action. *The function of the Mental Hygiene Division ends absolutely at this point. Sterilization of the mentally unfit is not within the province of this Division and cannot be carried out legally on recommendation or advice of any member of the Department of Public Health.*

So far as sterilization of the individual is concerned, the knowledge now available as to human heredity and as to the beneficial effect of sterilization is insufficient for advocating compulsory sterilization. Mental inefficiency is a legal concept and not a well-marked or scientific psychological term. There is at the present time no sound scientific basis for sterilization because of immorality or character defect. In case of any doubt as to the mental deficiency of a patient, the patient should be given the *benefit of doubt, and sterilization should not be undertaken.* In the State of California, sterilization cannot be undertaken legally even where presence of hereditary defect has been established, except in the case of a patient committed to one of the state institutions. Sterilization is then legal only when recommended by the Director of the State Department of Health and the Director of the State Department of Institutions. *There is a little reason to believe* that the wholesale sterilization of all known feeble-minded individuals *over a long period of years would accomplish much in reducing the number of mentally incompetent persons in the community.*

Concerning the distribution of biologics in California.

March 2, 1936.

Dr. W. M. Dickie
Dr. H. Morrow
Dr. G. H. Kress

Gentlemen: Through Dr. C. U. Duckworth, Chief of the Division of Animal Industry, State Department of Agriculture, I have been acquainted with certain practices which are now in vogue in California relative to the distribution of biologics. For your information I herewith enclose a copy of a letter from him, and I would greatly appreciate it if we could discuss the matter at a conference and outline such steps as we may deem necessary in the interest of the Food and Drug Administration within this state.

Sincerely yours,
K. F. Meyer.

* * *

State of California
Department of Agriculture
Sacramento

February 29, 1936.

Dr. K. F. Meyer
Director, Foundation for Medical Research
Second and Parnassus Avenues
San Francisco, California

Dear Doctor Meyer:

There has come to my attention what I consider a practice, which, if it is as reported, should be stopped. I am wondering if it cannot be made illegal through a regulation of the State Board of Health.

As you know, the last session of the Legislature enacted laws requiring biologics to be produced under state license, such licenses to be issued by the Board of Health, and that licenses issued by the United States Department of Agriculture on biologics used in livestock work would be recognized by said State Department of Health.

Information comes to us now that biologics are, in all probability, being relabeled in this State in such manner as does not show the rightful manufacturer, but infers that the product was made here.

I am wondering if a regulation could be made by the State Department of Health requiring biologics to carry the original label or the name and license number of the producer in all cases. As it is now, an attempt made to enforce the law might run into a legal stumbling-block in that a relabeled bottle could be held to have been the product of a legally licensed laboratory, rather than a non-licensed laboratory whose label it bore.

The Farm Bureau in Stockton was interested in this matter and asked me to communicate with you in regard to it. They also brought up the question of federal control of tuberculin to make more difficult and prohibit, if possible, the unlawful use of tuberculin, such as testing without reporting and plugging.

I would be pleased to have your views on this matter, which I would, in turn, pass on to the San Joaquin County Farm Bureau people.

Very truly yours,
C. U. Duckworth,
Chief, Division of Animal Industry.

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* From the office of Director of Public Health, City and County of San Francisco.

Concerning liability of school physicians. Methods of notification to parents.

1. *Explanatory Letter on the Subject Under Discussion*

January 29, 1936.

California Medical Association
450 Sutter Street
San Francisco, California
Attention: F. C. Warnshuis, M. D., Secretary.

Re: High School Health and Development Supervision.

Dear Doctor:

Under date of January 24, Dr. A. R. Thompson of Rio Vista requested my opinion with respect to the possible liability of a physician employed by a school district pursuant to the school code for negligent professional services rendered to students. Doctor Thompson pointed out that the students are all minors and that his authorization from the school board may only extend to emergency cases.

The point presented is both interesting and important to those members of the Association who may undertake this type of work. Therefore, I enclose a copy of my opinion to Doctor Thompson for your files. I am also enclosing a copy of the form letter suggested by Doctor Thompson, as revised by me, the use of which seems to me to be an advisable precautionary measure.

For their information, I am sending copies of this letter, my opinion and Doctor Thompson's form letter as revised, to each of the officers of the Association.

Very truly yours,
Hartley F. Peart.

* * *

2. *Opinion of the Legal Counsel of the Association*

January 27, 1936.

A. R. Thompson, M. D.
Rio Vista, California

Re: High School Health and Development Supervision.

Dear Doctor:

Your letter of January 24th with the enclosed form letter has been received. Your problem is a difficult one, and in order to discuss it intelligently, I think it would be best first to quote the applicable sections of the school code.

Sections 1.100 and 1.101 read as follows:

> "Chapter IV. Health Supervision
>
> "Article I. Powers and Duties of Governing Bodies of School Districts.
>
> "Sec. 1.100. Boards of school trustees and city boards of education shall have power, and it shall be their duty to give diligent care to the health and physical development of pupils, and where sufficient funds are provided by district taxation, to employ properly certified persons for such work.
>
> "Sec. 1.101. Boards of school trustees, city, and city and county boards of education are hereby authorized and empowered to provide for proper health supervision of the school buildings and pupils enrolled in the public schools under their jurisdiction."

The above sections are evidently the legal provisions pursuant to which you have secured a credential and have been employed by the school district. These sections, however, only relate to the duty and authority of school districts to employ physicians to care for the health and physical development of pupils and do not deal with the malpractice problem.

Section 2.801 provides:

> "Sec. 2.801. Boards of school trustees, high school boards, junior college boards and boards of education are liable as such in the name of the district for any judgment against the district on account of injury to person or property arising because of the negligence of the district, or its officers or employees. (Amendment approved June 19, 1931; Stats. 1931, p. 2487.)"

Although this section has not as yet been construed by an appellate court, at least in so far as malpractice is concerned, nevertheless it would seem that under its wording the school district is responsible for and must pay any judgment rendered against the district on account of an injury to a pupil resulting from negligent treatment, etc., by a physician employed by the school district.

The foregoing statutory provisions do not, however, relate to the scope of a school district physician's authorization. What I mean to say is this—that the school code does not outline in so many words the type of medical care and the quantity of medical care or surgical treatment which it is the duty of boards of trustees to provide for pupils. Therefore, it seems to me that your suggested form letter is a wise precautionary measure, because it may be that treatment other than emergency matters does not fall within the school code.

I have four suggestions to make with respect to your form: First, that you delete the second paragraph; the second suggestion is to reword the third paragraph so that it will read as follows:

> "Your child needs further treatment and I suggest that you consult your family physician at once, and I further suggest that you present to him this letter. It is understood, of course, that the matter of compensation for professional services rendered by any physician other than myself is not a responsibility of the school district."

The third suggestion is that your proposed form letter be first submitted to the board of trustees and approved by the board by resolution duly adopted (of which you might obtain a certified copy) before it is used by you. In my opinion, it would not be safe for you either to undertake additional treatment of school children or to use your suggested form letter until such time as you have received the approval of the school board as suggested above.

Finally, I suggest that your proposed form letter be submitted to the county society of which you are a member (which, I assume, is the Solano County Medical Society) for approval.

I have assumed in this opinion that you are covered by a physician's defense and indemnity policy.

In accordance with your request, I am enclosing herewith the copy of the form letter which you sent to me. If I may be of any further assistance to you in this matter, please feel free to call upon me.

Very truly yours,
Hartley F. Peart.

* * *

3. *Form Letter Suggested by the Legal Counsel*

A. R. Thompson, M. D.
Rio Vista, Calif.

................................, 193......

Dear Mr. ....

Your son, (daughter) .... was brought to my office today for examination of his (her) ...., and for which emergency treatment was .... given.

Your child needs further treatment and I suggest that you consult your family physician at once, and I further suggest that you present to him this letter. It is understood, of course, that the matter of compensation for professional services rendered by any physician other than myself is not a responsibility of the school district.

................................, M. D.
School Physician, Rio Vista, Cal.

* * *

4. *Letter to the Editor by the Director of the Health Service Section of the Board of Education of the City of Los Angeles*

February 12, 1936.

Dear Doctor Kress:

Your communication regarding a form letter for the protection of school physicians against malpractice suits by parents of school children, was received. I am enclosing copy of the Home Notice form used by the physicians of my department.

In the Los Angeles City Schools the regulations prohibiting the treatment of school children by school physicians are so rigidly enforced by my office that none of our physicians have ever felt the need of any special protection for liability incurred in the course of their duties. Our regulations provide that school physicians shall not treat or prescribe for school children. In the case of an accident occurring on school grounds, the school physician may administer first aid only. The family physician must be contacted through the parent at the earliest possible moment. In the event that the school is unable to contact the parent, treatment is provided for the pupil at the nearest receiving hospital.

Since Dr. A. R. Thompson of Rio Vista is providing emergency treatment such as would be given by the Receiving Hospital in Los Angeles, I can readily see that a form such as you have suggested for Doctor Thompson would be of great value as a protection against lawsuits. It would undoubtedly be useful to any school physician in a similar position.

As far as our local situation is concerned I feel that for the reasons given such a form is probably not necessary. Thanking you for your interest in our problems and with kindest personal regards, I remain

Cordially yours,
Sven Lokrantz, M. D.,
Director, Health Service Section.

* * *

5. *Notification Form Blank Used by the Los Angeles City School Department*

LOS ANGELES CITY SCHOOL DISTRICT
Division of Health and Corrective Physical Education
Sven Lokrantz, M. D., Director
Report of Health and Development Examination

..............................(Name of school) ....Date

Dear Parent: Your son, daughter (name) .... has been examined by Dr. (name) ...., the School Physician, who noticed:

....

....

We believe that your child will be very much helped if this condition is attended to as soon as possible. We would advise you to see your family physician; or if you are financially unable to meet such expense, assistance may be obtained at a Health Center by arranging with the School Physician or Nurse. The School Physician invites parents to come to the school when examinations are being held.

We are enclosing leaflets which will explain briefly the conditions of which we have spoken.

Please sign and detach the note below and return it to the school so that we may know that you have received our letter.

Yours very truly,
....Principal

N. B. Nurse's next day at school is..
Physician's next day at school is..
(Perforated line here)

....

To the Principal:

I have received the notice of Dr. ....'s examination of ...., and will arrange to have the conditions attended to.

SPECIAL ARTICLES

BASIC SCIENCE ACT OF WASHINGTON*

Supreme Court of State of Washington Sustains Judgment that Basic Science Law Applies to All Healing-Art Schools

Through the courtesy of Hartley F. Peart, Esq., General Counsel of the California Medical Association, the editor received a copy of the "Pacific Reporter" (Second Series, Vol. 47, 2d, No. 1, pages 1 to 448, issue of August 16, 1935), in which was printed the decision of the Supreme Court of the State of Washington, in *State* v. *Wehinger*, sustaining the Basic Science Act of the State of Washington.◈ The decision is here reprinted in full:

STATE v. WEHINGER
No. 25574
Supreme Court of Washington
July 3, 1935

1. Physicians and surgeons ◈ 6(½)

Chiropractic is distinguished from all other healing arts (Rem. Rev. Stat., Secs. 10098 to 10111).

2. Physicians and surgeons ◈ 6(1)

Use of drugs and instruments is not within scope of chiropractic and would be illegal (Rem. Rev. Stat., Secs. 10098 to 10111).

3. Physicians and surgeons ◈ 6(½)

Chiropractic does not include and is outside of scope of "materia medica" (Rem. Rev. Stat., Secs. 10098 to 10111).

"Materia medica" is defined as material or substance used in the composition of remedies; a general term for all substances used as curative agencies in medicine; that branch of medical science which treats of the nature and properties of all the substances employed for the cure of diseases.

4. Physicians and surgeons ◈ 5(2)

Addition of pathology to list of subjects as one of the basic sciences upon which applicants to practice chiropractic were examinable *held* not unreasonable, especially in view of its similarity to "symptomatology" which had always been included in the examination subjects (Rem. Rev. Stat., Secs. 10098 to 10111, 10185—1 to 10185—9).

"Pathology" is the science treating of diseases, their nature, causes progress, manifestations, and results, while "symptomatology" is the doctrine of symptoms; that part of medical science treating of symptoms of diseases; semeiology.

[Ed. Note.—For other definitions of "pathology," see Words and Phrases.]

5. Physicians and surgeons ◈ 5(2)

Addition of "chemistry" to list of subjects as one of the basic sciences upon which applicants to practice chiropractic were examinable *held* not unreasonable (Rem. Rev. Stat., Secs. 10098 to 10111, 10185—1 to 10185—9).

"Chemistry," is the science that treats of the composition of substances and of the transformations which they undergo.

6. Stipulations ◈ 13

Request for modification of agreed statement of facts in prosecution for attempting to practice chiropractic without a license, by striking out words "equivalent to materia medica" in statement that accused would not have been permitted to take chiropractic examination until he had taken examination in basic science, equivalent to materia medica, *held* entertainable by trial court, even though request was made only in brief and not in form of motion, in view of clearly inadvertent use of words (Rem. Rev. Stat., Secs. 10098 to 10111, 10185—1 to 10185—9).

7. Stipulations ◈ 14(10)

Statement in stipulation of facts in prosecution for attempting to practice chiropractic without a license that accused would not have been permitted to take chiropractic examination until he had taken examination in basic science, equivalent to materia medica, *held* a legal conclusion, in respect to basic science being equivalent to materia medica, and could be disregarded by court (Rem. Rev. Stat., Secs. 10098 to 10111, 10185—1 to 10185—9).

8. Stipulations ◈ 14(10)

Words "equivalent to materia medica" contained in sentence of agreed statement of facts in prosecution for attempting to practice chiropractic without a license, that accused would not have been permitted to take chiropractic examination until he had taken examination in basic science, equivalent to materia medica, *held* properly disregarded by trial court, since agreed statement of facts will not be so construed as to give it effect of an admission of fact obviously intended to be controverted (Rem. Rev. Stat., Secs. 10098 to 10111, 10185—1 to 10185—9).

9. Physicians and surgeons ◈ 1

No one has a natural or absolute right to practice medicine or surgery, and state may, under its police power, regulate, within reasonable bounds for protection of public health, practice of medicine and surgery by defining qualifications prerequisite to licensing.

10. Constitutional law ◈ 83(1), 287
Physicians and surgeons ◈ 2

Statute requiring chiropractor before receiving certificate to practice chiropractic to pass examination upon basic science, including pathology and chemistry, *held* not unconstitutional as denial of liberty and due process of law (Rem. Rev. Stat., Secs. 10098 to 10111, 10185—1 to 10185—9).

* * *

Department 2.

Appeal from Superior Court, King County; Calvin S. Hall, Judge.

A. O. Wehinger was convicted of attempting to practice chiropractic without a license, and he appeals.

Affirmed.

Wright & Wright of Seattle and George G. Rinier of Indianapolis, Indiana, for appellant.

Warren G. Magnuson and B. Gray Warner, both of Seattle, for respondent.

Holcomb, Justice.

This case was originally brought in a justice court of King County, Washington, who, after overruling a demurrer, found appellant guilty and assessed a fine against him, from which he appealed to the Superior Court. After the case reached the Superior Court, a jury trial was waived and the case was submitted upon an agreed statement of facts, as follows:

"It is hereby stipulated and agreed, between counsel for the state, and counsel for the accused, that the facts in the above entitled matter are as follows:

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* See also page 252.

◈ For other cases see same topic and key number in all Key Number Digests and Indexes.

"1. That the defendant's name is 'A. O. Wehinger'; that he is residing in the city of Seattle.

"2. That he is a graduate of the Palmer School of Chiropractic, of Davenport, Iowa, a school of national reputation and prominence, well qualified in its instruction as a chiropractic school.

"3. That the defendant has not taken the examination for chiropractic practice, as provided by Chapter VII of an act defining physicians, surgeons, and treatment of the sick, and particularly with sections 10098 to 10108, inclusive, of Remington's Revised Statutes.

"4. That he would not have been permitted to take the examination, as provided in Chapter VII of the act defining physicians and surgeons, and treatment of the sick, if he had so applied for examination, unless he had first taken an examination before an examining committee, as provided in Chapter XIII of the same act pertaining to examinations of physicians and surgeons and others attempting to qualify for treatment of the sick. In other words, he would not have been permitted to take the examination as a chiropractor until he had taken an examination in basic science, equivalent to materia medica.

"5. That notwithstanding all of the foregoing, the defendant in Seattle, King County, Washington, did on or about the first day of July, 1934, use the title 'Chiropractor' by advertising in the newspaper, according to advertisements hereto attached, marked Exhibit 'A,' and made a part of this stipulation. That since said July 1, 1934, the defendant has continued to so advertise according to the copy of the advertisement hereto attached and referred to as Exhibit 'A.'

"Dated this eleventh day of October, 1934."

The case was then taken under advisement by the trial court and arguments submitted by written briefs from respective counsel. During the course of the argument by briefs, counsel for the state suggested to the court that there was a mistake in the agreed statement of facts in that the last four words in paragraph 4 thereof, "equivalent to materia medica," had been inadvertently included therein and should be disregarded. Appellant objected to any change in the agreed statement in any particular. After having had the matter under advisement for some weeks, the trial court rendered a decision stating that the words "equivalent to materia medica," in the agreed statement of facts would be disregarded. He thereupon adjudged appellant guilty and imposed a fine for the alleged offense. Before sentence, appellant moved for an order arresting judgment or, in the alternative, for a new trial, both of which motions were denied.

One of the grounds for a new trial was error of law occurring at the trial and excepted to by appellant in that it was error by the court to grant the request of the state to amend the agreed statement of facts.

The errors assigned by appellant on appeal are first in amending the agreed statement of facts; second, in overruling his motion in arrest of judgment and motion for a new trial; and, third, in finding appellant guilty and imposing a fine.

Since the enactment of Chapter V, Laws of 1919, chiropractic practice has been regulated by statute, Rem. Rev. Stat., Secs. 10098 to 10111, inclusive.

After the passage of that law regulating chiropractic in 1927, the legislature passed another law requiring applicants for chiropractic licenses to pass examinations in other subjects, which was denominated the basic science law, now codified as Rem. Rev. Stat., Secs. 10185—1 to 10185—9, inclusive. The first section of that act provides for the establishment of an examining committee of five members learned, respectively, in the sciences of anatomy, physiology, chemistry, pathology, and hygiene, to conduct and assist in conducting examinations of all persons applying for licenses or certificates to practice medicine and surgery, osteopathy, osteopathy and surgery, chiropractic or drugless therapeutics in the state of Washington as required by law. Provision is then made that this committee should be appointed by the Governor from the faculty lists of the University of Washington and Washington State College.

The second section prescribes that the examining committee shall conduct examinations in anatomy, physiology, chemistry, pathology, and hygiene at least twice in each year at such times and places as the examining committee and director of licenses may determine. The third section prescribes that the examinations shall be written and shall be of such a nature as to constitute an adequate test as to whether the person so examined has such knowledge of the elementary principles of such sciences as taught at the University of Washington and Washington State College, or in any college or university accredited by the University of Washington, equivalent to one year's instruction of thirty-six weeks.

Section 10185—4 reads: "Any person desiring to apply to the director of licenses for a license to practice medicine and surgery, osteopathy, osteopathy and surgery, chiropractic, or drugless therapeutics shall first present to the director of licenses his credentials provided by law evidencing his qualifications to be admitted to license or to take the examination prerequisite to securing of such certificate or license and if the same are found satisfactory and the applicant is eligible to such examination, the said director of licenses shall issue to such applicant a certificate giving the name of such applicant and certifying that such applicant is entitled to take the preliminary examination provided for in this act, but without specifying the branch of therapeutics for which said applicant has applied for a license, and upon presentation of such certificate to said examining committee, together with an examining fee of ten dollars, said applicant shall be entitled to take the examination provided for in Section 10185—3: Provided, that if such preliminary examination is conducted by the director of licenses as provided in Section 10185—2, such preliminary examination may be given upon the payment of such ten dollars examining fee, and without such preliminary certificate."

The fifth section establishes the minimum percentages necessary to be made by an applicant. The sixth section dispenses with a second examination on such subjects in cases where the existing law requires the examination in any one or more of the branches of anatomy, physiology, chemistry, pathology, or hygiene, as a prerequisite to the issuance of the license applied for. The seventh section fixes the compensation to be paid members of the examining committee. The eighth and final section provides that the act shall not be construed or held to apply to or interfere in any way with the practice of religion or to regulate in any way any kind of treatment by prayer.

The original law regulating chiropractic practice also provided that applicants for license to practice such system should pass examinations in writing on anatomy, physiology, hygiene, symptomatology, nerve tracing, chiropractic orthopedy, principles of chiropractic and adjusting, as taught by chiropractic schools and colleges; and that such applicants should answer 75 per cent of all questions asked and should not be entitled to receive a license if such applicant failed to answer correctly 60 per cent of the questions on any branch of the examination.

It is thus plain that two things only are included in the so-called basic science law (Rem. Rev. Stat., Sec. 10185—1 et seq.), which were not included in the chiropractic law, namely, chemistry and pathology. Materia medica was not included in the basic science law nor in the original chiropractic law. It is also clear that the so-called basic science law includes physicians and surgeons as well as the other classes of healers, all of whom are regulated by law in this state, as well as the chiropractor, unless they have been previously examined and passed in one or more of the subjects specified.

The advertisement stipulated as that which appellant had published was one giving the outline of a female form and with a list of twenty-six human disorders that his advertising said he could find and remove the cause. All of the ailments were aligned with some part of the spine, with the vertebrae apparently bare.

[1-3] For the purpose of eliminating useless discussion and the review of many statutes and decisions, about which much ado is made in the briefs of appellant, we grant these propositions: (1) Chiropractic is specifically defined by statute in this state, Rem. Rev. Stat., Sec. 10098, et seq.; (2) chiropractic is distinguished from all other healing arts; (3) the use of drugs and instruments is not within the scope of chiropractic and would be illegal; and (4) chiropractic does not include and is outside of the scope of materia medica, which is forbidden.

The concession of those propositions by no means concedes that the so-called basic science act requires applicants for chiropractic licenses to pass examinations outside the scope of their profession as equivalent to materia medica, or to require chiropractors to pass examinations in subjects which have no relation whatever to chiropractic, which would be a denial of liberty and due process of law and, therefore, unconstitutional and void.

"Materia medica" is defined by Webster's New International Dictionary as: 'Material or substance used in the composition of remedies; a general term for all substances used as curative agencies in medicine. 2. That branch of medical science which treats of the nature and properties of all the substances employed for the cure of diseases."

[4] "Pathology" is defined by the same author as: "The science treating of diseases, their nature, causes, progress, manifestations and results."

This definition, as everyone knows, is almost the same as that of symptomatology, which has always been included in the subjects upon which chiropractic practitioners must pass a satisfactory examination. ("Symptomatology" is defined by Webster as "The doctrine of symptoms; that part of medical science treating of symptoms of diseases; semeiology.") This has been required for the very good reason that if a practitioner cannot ascertain the character of the ailment he cannot intelligently treat it.

[5] Anatomy has always been comprised in their subjects for examination; so has physiology, hygiene, nerve tracing, and chiropractic orthopedy. One new subject, chemistry, has been added which has been defined by Webster as: "The science that treats of the composition of substances and of the transformations which they undergo."

No one can justly say that the addition of chemistry to the list of subjects as one of the basic sciences, upon which applicants to practice chiropractic are required to have some knowledge, is an unreasonable requirement. It is a subject that is taught in high schools everywhere.

[6, 7] It is thus obvious that whoever signed the agreed statement of facts on behalf of the state, including the words "equivalent to materia medica," must have done so inadvertently, or intended to give his case away, which cannot be considered as probable on the part of the reputable attorneys for the state.

Appellant contends that the proper procedure to obtain a correction of the agreed statement of facts was not followed, since there was no formal motion for modification thereof. The request for modification, although not in the form of a motion, was a request made in the written brief to the court.

In *Levy* v. *Sheehan,* 3 Wash. 420, 28 P. 748, we held that although the better practice would have been to make a formal motion to correct the agreed statement of facts, an informal action was equivalent to such a motion and should be allowed without further proofs.

The words considered stricken by the trial court and disregarded were so clearly foreign to the basic science law and also to the chiropractic law that, besides being inadvertent, they were nothing more than a legal conclusion. That was a matter which was for the trial court to determine uninfluenced by stipulation of the parties or counsel. *Jones* v. *Madison County,* 72 Miss. 777, 18 So. 87; *Prescott* v. *Brooks,* 62 N. D. 771, 94 N. W. 88; *Luce* v. *Aash,* 28 S. D. 109, 132 N. W. 708; *Swift & Co.* v. *Hocking Valley Railway Co.,* 243 U. S. 281, 37 S. Ct. 287, 61 L. Ed. 722. In the last-named case, in the opinion by Mr. Justice Brandeis, it was held that the court cannot be controlled by an agreement of counsel on a subsidiary question of law.

[8] Nor can a court be controlled as to the legal construction from a given state of facts (60 C. J. 60). Nor will the language of an agreed statement of facts be so construed as to give it the effect of an admission of fact obviously intended to be controverted or the waiver of a right not plainly intended to be relinquished (60 C. J. 62).

In the instant case the state could have had no other intention than to controvert the fact which the trial court struck or disregarded, and which we think was right.

Stevenson v. *Hazard,* 152 Wash. 104, 277 P. 450, was based upon a motion to set aside a very formal stipulation as to damages in which we held that no independent action was necessary upon the authority of *Levy* v. *Sheehan,* supra.

City of Lincoln v. *Lincoln Street Railway Co.,* 67 Neb. 469, 93 N. W. 766, strongly relied upon by appellant, was one where the stipulation was no more than a statement of an ultimate fact, but the court held that to have set it aside or modify it would have made it necessary to retry the whole case, and to require this to be done would have been an abuse of discretion.

Other cases cited from outside jurisdictions by appellant are also upon widely different matters of stipulation than that involved here.

We conclude, therefore, that there is no merit in the contention of appellant on that phase of the case.

[9, 10] The conclusion upon that matter somewhat simplifies the case on the other issue: That to require chiropractors to pass an examination in subjects which have no relation whatever to the functions of chiropractic healing would be a denial of liberty and of due process of law and, therefore, unconstitutional and void.

This court, in common with most courts in the Union, has sustained legislation regulating the practice of medicine and surgery and the so-called other healing arts and drugless healing. All such acts for the regulation of medicine, surgery, and chiropractic have been sustained here and elsewhere as a valid exercise of the police power and not violative of any constitutional provision. *State* v. *Greiner,* 63 Wash. 46, 114 P. 897; *State Board of Medical Examiners* v. *Harrison,* 92 Wash. 577, 159 P. 769; *State ex rel. Hagen* v. *Superior Court,* 139 Wash. 454, 247 P. 942; *Laughney* v. *Maybury,* 145 Wash. 146, 259 P. 17, 54 A. L. R. 393; *State* v. *Verbon,* 167 Wash. 140, 8 P. (2d) 1083.

In *People* v. *Lewis,* 233 Mich. 240, 206 N. W. 553, 42 A. L. R. 1337, the Michigan Supreme Court, upheld an act regulating the practice of the system of chiropractic and held that one desiring to practice that system is not deprived of the equal protection of the laws by requiring him, as a condition for securing a license, to pass an examination in anatomy, histology, embryology, physiology, chemistry, bacteriology, pathology, diagnosis, hygiene, and public health. It will be observed that act cantained more subjects in which a chiropractor is required to be reasonably proficient than our basic science law. This law was upheld despite the fact that it was shown that such subjects were not taught in chiropractic schools.

In a case at which counsel for appellant cast some criticisms, in oral argument, decided by the Supreme Court of Louisiana, *Louisiana State Board of Medical Examiners* v. *Fife,* 162 La. 681, 111 So. 58, 54 A. L. R. 594, that court held that chiropractors are not unconstitutionally denied the equal protection of the laws by being required to have a knowledge of materia medica and surgery, to receive a license to practice their profession, when such knowledge is not required of osteopaths, dentists, chiropodists, and trained nurses; and that under the act of that state the practice of chiropractic is the practice of medicine.

While our law does not go to the extreme, the statute of that state does and we might possibly not go to the lengths that court did in sustaining such an act, it cannot be doubted that no one has a natural or absolute right to practice medicine or surgery and that the state may, under its police power, regulate within reasonable bounds, for the protection of the public health, the practice of medicine and surgery by defining the qualifications one must possess before being licensed to practice the same and that a chiropractor is deprived of no constitutional right by being required, before receiving a certificate to practice his profession, to have adequate knowledge of the subjects laid down by the statutes of this state.

A case greatly relied upon by appellant, *State* v. *Biggs,* 133 N. C. 729, 46 S. E. 401, 64 L. R. A. 139, 98 Am. St. Rep. 731, was a decision on appeal by one who was practicing without a license obtained from the State Board of Medical Examiners in which it does not appear to us that there was any statute regulating chiropractic, or these other healing arts, in that state, but only one regulating medicine and surgery, or any branches thereof, and osteopathy. We do not consider that case of any help to appellant.

Another case cited and relied upon by appellant, *State* v. *Armstrong,* 38 Idaho, 493, 225 P. 491, 492, 33 A. L. R. 835, was an appeal from a conviction by a chiropodist or corn doctor, in which the court said that the statutes do not provide an examination and license for chiropody. It was held that the right to follow a recognized and useful occupation is a right protected by the constitutional guaranty of liberty. The court there, however, did state sound principles as follows: "Until 1923 the legislature of the state of Idaho had divided the practice of the healing art into the several divisions generally recognized, such as medicine and surgery, osteopathy, and chiropractic, requiring those practicing each branch of the art to undergo an appropriate examination and procure a license. It is clear that the purpose of these statutes was to protect the public health and conserve the public safety by requiring those practicing to be competent and qualified. The objects of such laws are: (1) To prevent people being mistreated by incompetents; and (2) to prevent the credulous from being misled and preyed upon."

With those pronouncements we concur.

There is nothing unreasonable in the legislative additional requirement so that it is a denial of due process of law.

It being undeniable that appellant has attempted to practice the healing art called chiropractic without first obtaining a license so to do, he was guilty as found by the trial court.

The judgment is affirmed.

Millard, C. J., and Mitchell, Steinert, and Blake, JJ., concur.

A man's reaction to blame, to his own blunders and the other fellow's censure—there is the deepest test of any human, including yourself. No matter how brilliant you may be, how charming or versatile, industrious or loyal, generous or honest, you are a flop and you are doomed to failure if you cannot admit that you are in the wrong, take the blame and then forget it.—E. Robinson.

Knowledge is power; the exercise of a self-developed skill is joy; and these are the parents of enthusiasm, which can ward off "the slings and arrows of outrageous fortune," and conquer the world.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. IX, No. 4, April, 1911

From Some Editorial Notes:

Annual Meeting.—The annual meeting of the Medical Society of the State of California will be held this year at the Potter Hotel, Santa Barbara. An excellent program has been arranged by the Committee on Scientific Work, Doctor Lobingier chairman; this will be found on another page of this issue of the *Journal.* Every county society should be represented in the House of Delegates, as matters of importance will come before that body, and in these things the whole State is interested. The Society was never in so good a condition, both as to live interest and financially, as at the present time. Our latest venture, medical defense, is working most satisfactorily and, for more than a year and a half, every member of every county society has been amply protected. Other ways in which the State Society may be of use to its members will be brought forward and considered at this meeting, and a full attendance of delegates should be present to consider them and to explain these things to their respective societies. . . .

* * *

Proprietaries Good and Bad.—For any manufacturer to claim that there is the slightest legitimate reason for refusing to submit his preparations to the Council on Pharmacy and Chemistry of the American Medical Association, is to assert an absurdity. Most reputable manufacturers have found this out and now acknowledge it. . . .

* * *

"D——d Hard Reading!"—The editorial breast is filled with gratitude almost to the explosive mark! The *Indiana State Journal* recently called attention to, and entered a protest against the carelessness of authors in preparing papers for publication; the *Journal of the American Medical Association,* evidently also feeling the sympathetic touch in the editorial breast, took this up and commented on it, quoting Byron to the effect that "easy writing makes d——d hard reading." The awful mess that some physicians will gather together and send to a journal, expecting it to be published, is almost beyond the power of words to express, for the alleged manuscript is often not composed of words (at least any known words in any known language), but of wonderful and fearful combinations of letters—supposedly abbreviations—signs, symbols, hieroglyphics and, occasionally, partly intelligible collections of words, a few of which make sentences. Particularly is this true when the author has graciously favored the publication with some case reports, accompanied by charts and bedside notes. Heaven is really the home of these "authors," but they won't go home!

From an article on "The Commitment of the Insane in the State of California" by A. W. Hoisholt, M.D., Stockton.

In an address delivered before the California Northern District Medical Society on October 13, 1896, I began this subject with the following sentence: "The lunacy laws relating to the commitment and detention of persons alleged to be insane, which are in effect at the present time in the State of California, have not been essentially modified for twenty years." Fourteen years have elapsed since then, and during this time a new lunacy law has been enacted, and this later modified; but nevertheless the manner in which the welfare of these poor unfortunates is looked after previous to their transfer to the State Hospital is today only to a slight extent an improvement upon what it was then. . . .

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

At a regular meeting of the Board of Medical Examiners held in Los Angeles, March 9 to 12, inclusive, over sixty applicants wrote the examination, comprising physicians and surgeons, drugless practitioners, and one midwife. Changes in status of licentiates, cited before the Board under the provisions of Section 14 of the Medical Practice Act, were as follows:

James W. Brownlie, M. D., Vallejo (narcotic dereliction), was on March 11 placed on probation for three years, without narcotic privileges.

Manford Dummit, M. D., Los Angeles (narcotic dereliction), was on March 10 placed on probation for five years, without narcotic privileges.

Arthur F. Gill, M. D., Banning (federal conviction), was on March 10 placed on probation for two years.

Homer I. Keeney, M. D., San Francisco (narcotic dereliction), was on March 10 placed on probation for five years, without narcotic privileges.

Woodward B. Mayo, M. D., Los Angeles (violation of probation). License revoked on March 10.

Walter F. Pike, M. D., Oakland (narcotic dereliction), was on March 11 placed on probation for five years, without narcotic privileges.

William Norman Powers, M. D., Los Angeles (conviction of felony). License revoked on March 11.

Robert Bremner Smith, M. D., Yountville (federal narcotic conviction). License revoked on March 11.

Carl Wahrer, M. D., Seymour, Iowa, formerly of Sacramento (federal narcotic conviction). License revoked on March 11.

"The United States Naturopathic Association lost another round in its legal battle with California officials over the 1922 Chiropractic Act yesterday before the United States Supreme Court, Associated Press dispatches from Washington stated. The Court refused the Association's request for a mandamus order directing Federal Judge George Cosgrave of Los Angeles to grant an injunction against enforcement of the California law. The motion contended the California law created a 'monopoly of one class of persons and creates an unreasonable discrimination and an unlawful abuse of the interest and property rights of another class.' Federal action was sought following the arrest of several naturopaths on complaint by the State Board of Medical Examiners." (San Francisco *Examiner,* March 17, 1936.) (Previous entry, November and December, 1935.)

An investigation report from Southern California indicates that a chiropractor is using some mysterious shortwave radio machine, by which is treated a patient *anywhere at any time.* It is not necessary for the patient to be sent to the office or to be anywhere near the machine. A charge of $1 is made for diagnosis, and $5 a week for treatment. The diagnosis is made from the handwriting, the hair, or anything else belonging to the patient, because "all his vibration treatment is said to be radio waves which react on the patient because the handwriting or object belonging to the patient is used. When the handwriting is sent to be diagnosed it is examined every two weeks to check the condition of the patient, because the handwriting is claimed to change with the patient's condition."

"Dr. L. J. Otis, sixty-five, of 636 Firestone Boulevard, faces a charge of violation of the State Narcotics Act,

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† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

(Continued in Front Advertising Section, Page 17)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

(Continued in Front Advertising Section, Page 17)

INTRAVENOUS DEXTROSE IN THE TREATMENT OF . . . . .

Toxemias of Pregnancy

Pernicious Vomiting • Chorea Gravidarum • Acute Yellow Atrophy of the Liver • Eclampsia

• For two decades, the therapeutic value of dextrose (*d*-glucose) in the treatment of toxemias of pregnancy has been recognized. Reduced mortality in clinics adopting dextrose therapy, together with strikingly beneficial clinical results, have led to the very general use of dextrose in modern obstetrics. The usual results following dextrose infusion include restored diuresis, lowering of blood pressure, cessation of pernicious vomiting, diminution of convulsions, and regaining of consciousness. Edema diminishes rapidly, and the acetone odor indicative of ketosis leaves the breath. Recurrence of symptoms usually yields to repeated injections.

• While the etiology of each toxemia of pregnancy is debated, the clinical picture is one of acute carbohydrate deficiency. Increasing demands of the fetus and diminished intake by the expectant mother combine to deplete liver glycogen reserves. Depletion seriously impairs the detoxicant function of the liver, and leaves its cells vulnerable to attack by toxins. Acidosis, hypohydration, or hypochloridation may darken the already dismal clinical picture.

• With the background of liver damage in mind, the marked curative effects of dextrose are understandable. Dextrose rapidly establishes glycogen reserves and stimulates repair of liver cells. The replenished liver frees the blood of its toxins, and the whole clinical picture brightens. Hypohydration is relieved by the water injected, and body chlorides may be restored by injecting dextrose in a salt solution. In conjunction with other indicated measures, such as rest in bed, isolation, and sedatives, dextrose infusion has consistently effected remarkable recoveries.

• In mild cases, dextrose should be administered orally, but severe cases necessitate a parenteral route, preferably intravenous. Considerable variation in dosage has been used with almost uniformly beneficial results. Titus prefers an average intravenous dose of 300 cc. of 25% dextrose, during 90-100 minutes, repeated one to three times daily, as necessary. Thalhimer injects 1000 cc. of 10% dextrose, with one unit of insulin for each 3 grams of dextrose. Five per cent dextrose is usually favored where hypohydration must be combated, with 10, 20, or 25% solution preferred where maximum carbohydrate is desired. The intravenous route is chosen except where small veins or convulsions preclude its use, when intramuscular injection of 10% dextrose or subcutaneous injection of 5% dextrose is ordinarily substituted. Body chlorides lost through excessive vomiting may be restored by injecting dextrose in physiological sodium chloride, Ringer's or Hartmann's solution. In the presence of acute hemorrhage or shock, a blood transfusion or infusion of 500-1000 cc. of 6% acacia with 5, 10, or 20% dextrose in physiological sodium chloride solution is indicated. The rate of intravenous injection of 5% dextrose should not exceed 500-750 cc. per hour for the average adult patient, with correspondingly lower rates for more concentrated solutions. The latter are indicated in patients with cardiac failure, to avoid overloading the heart.

• Baxter's solutions in Vacoliters solve a distinct problem for the physician attending a pregnant woman with a toxemia. The assured safety of Baxter's solutions, and the convenient simplicity of administration with the Vacoliter, serve to free the physician's attention completely to the patient. And where neurosis is a factor, the trim efficient appearance of the Vacoliter may well have the salutary psychological effect which is desirable in certain cases of toxemia of pregnancy.

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The Crusade Against Cancer.—The ministry of the interior and the ministry of public instruction have agreed to coöperate with the city of Berlin in carrying on a crusade against cancer. Their common endeavors envisage the support of all practical and scientific movements and collective action with respect to all organized efforts to suppress all forms of cancer, in providing continuation courses for physicians, and in the better training of the oncoming generation of physicians. The execution of the extensive plan is based on large-scale arrangements in the largest Berlin hospital, the Rudolf Virchow-Krankenhaus, whose clinical departments and modern roentgenologic institute furnish especially favorable conditions, which can be still further amplified as need arises. Within this hospital a large "general institute for the combating of cancer" has been created, in which treatment, research and instruction will go hand in hand. The university institute for cancer research, established many years ago at the Charité Hospital in Berlin, has consented to coöperate in this collective movement, although the two institutes will preserve their complete independence. The whole movement as so organized will keep in close touch with the federal commission for the combating of cancer, of which Professor Borst of Munich is chairman. The mayor of Berlin and the medical faculty of the University of Berlin are members of the honorary committee of the institute.

The creation of this institute is not designed to effect a concentration of cancer treatment; on the contrary, every clinic and every hospital, within the range of their capacities and equipment, will continue to participate in scientific research and in treatment. In the new institute the clinical point of view will be in the ascendency; hence Professor Sauerbruch has been chosen director. The new institute has already begun to function, and many cancerous persons are being brought in.—*Berlin Letter, Journal of the American Medical Association.*

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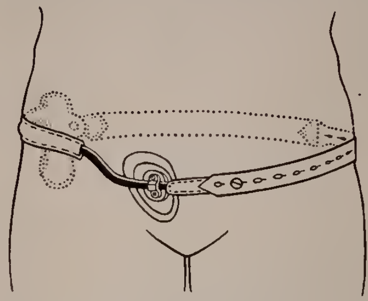

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Twenty Years of Sanitary Engineering in California.*—In 1915 the state legislature, harassed by sanitary problems and pursuing the precedent of a few other states, provided a Bureau of Sanitary Engineering in the State Board of Public Health. It has since been maintained with appropriations varying from $15,000 to $25,000 per year. The Public Health Act of 1907, providing for a permit system and state approval of plans and sites, has been rigorously applied to sewage disposal projects and, as far as time has permitted, the companion Sanitary Water Systems Act has been applied to water supply. Largely as a result and also influenced by the general improvement in sanitary engineering knowledge throughout the country, and the promotion of better sanitation by health officers, water supplies, and sewage disposal are far from the plague they once were, as this review will indicate. It is the story of the quiet work of many people throughout the state, with the bureau at its center.

The highlights of accomplishment where contrasts of past and present are striking may be recounted as follows. Prior to 1915 so few sewage treatment plants had the benefit of wise selection of sites and methods of treatment that out of some eighty-two works built in California up to that time, forty-five, or over half, have since been abandoned. Out of 181 sewage treatment plants built under state supervision since 1915, only ten plants have had to be replaced by others. The longer life of usefulness of so many plants must have been worth huge sums to the cities and towns of the state. So, too, has been the almost total absence of litigation over unsanitary sewage disposal and water supply, and also the movement which the state is in peculiar position to foster, whereby communities have joined in the common disposal of their sewage. Nine treatment plants now solve the problem of disposal for forty-three communities and spare a large countryside the annoyance of neighboring sewage works.

Through attacks by many agencies, on many fronts, the greatest of which is water disinfection and better laboratory control, typhoid fever epidemics, as derived from water, have almost disappeared, the last water-borne outbreak in California having occurred in 1924. Prior to that time, scarcely a year failed to produce one or more water-borne typhoid outbreaks. Sewage treatment prior to 1915 was limited almost entirely to septic tanks. The designs of the bureau for a trickling filter at Reedley in 1915, and for an activated sludge plant at Folsom Prison in 1917, inaugurated the two most common of the high grade or "complete" process of sewage treatment to be seen in the state today. Nearly half of the present-day sewage treatment works represent "complete" processes in which not only is the sludge removed from the sewage, but the sewage is rendered clear and odorless. Recently a few plants have also disinfected the effluent and several have been induced to employ better odor control in the plants. Odorless sewage disposal, now gaining recognition throughout the country, has always been emphasized since the bureau was created.

One hundred forty-three places have put in new sewer systems since 1915 and the state is in a fair way to attain, generally, the convenience of sewerage and plumbing—probably within another twenty years.

By reason of the endemic and epidemic typhoid fever which kept the state alarmed, the first major task in 1915 was to raise the safety of water supplies. The bureau at once established state-wide bacterial control of water systems and largely as an outcome of this many dangerous supplies were abandoned, others protected, and almost 150 places have provided some form of water treatment, the most common of which is water disinfection. The only water purification prior to 1915 was a sort of straining practiced at three or four places and some attempt at water disinfection. There are now thirty-six filtration plants, about half of which will compare with any in the country. More recently, municipal water softening has appeared. All these waterworks have a frequent bacterial

(Continued on Page 40)

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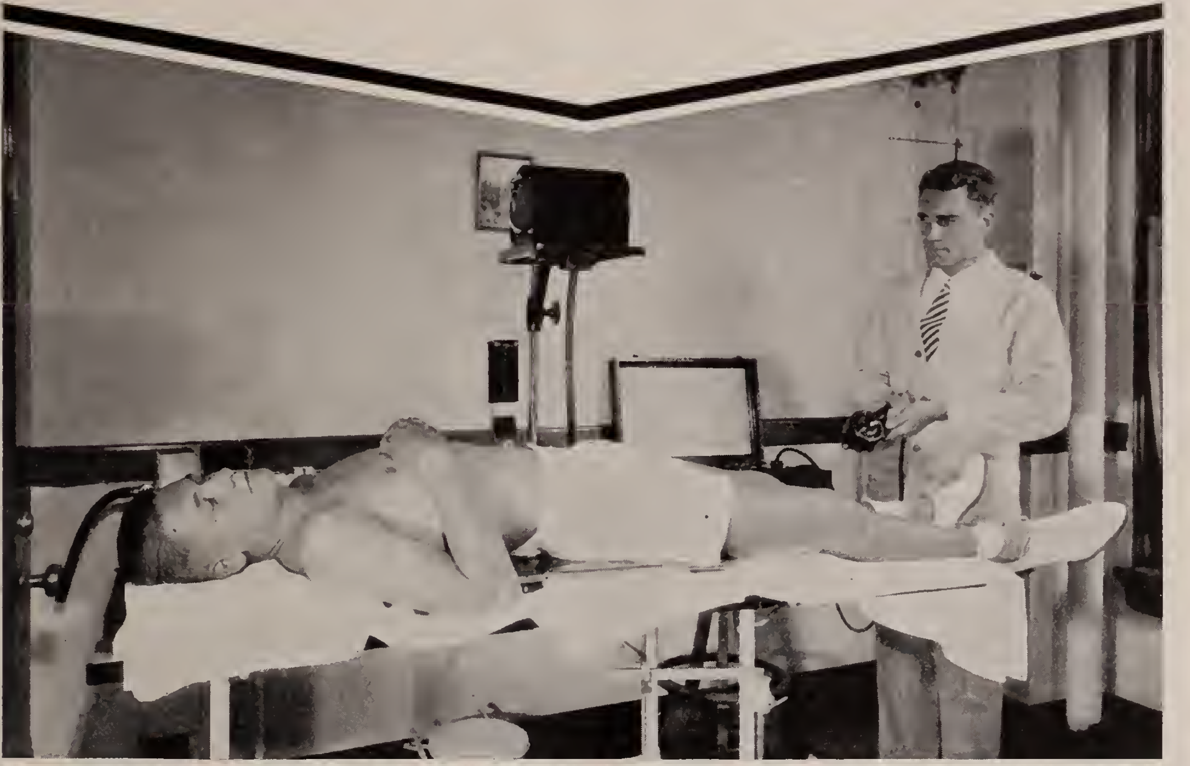
* By C. G. Gillespie, Chief, Bureau of Sanitary Engineering, California State Board of Health.

What Can I Do With Such a Small X-Ray Unit?



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(Continued from Page 38)

control through the water department or the health department. It may be hard to realize that in 1915 few waterworks men were willing to have their water tested.

Cross-sections between private and foreign sources of water are generally considered to represent the last remaining common menace to the purity of water supplies. Not less than one thousand of such connections have been done away with in this state within recent years, under plans prepared or approved by the bureau.

Each year approximately one hundred water supplies are reported on for certification to the United States Public Health Service, which in turn certifies them by reason of their use on some three hundred common carriers.

There are approximately eight hundred waterworks and sewer systems in California. These have been inspected at irregular intervals, and in 1930 to 1932 all municipal systems, aggregating about seven hundred, were surveyed systematically and fully reported by the bureau. Standards of sewage disposal in state institutions have been brought to a high plane through the concerted planning by the bureau of the State Department of Engineering, which actually builds the works.

State swimming-pool sanitation was pioneered in California in 1917. The number of pools is now close to three thousand. Almost all the states have followed closely in the path this state has set.

With the city health department of San Francisco, sanitation of oyster beds, clam beds, and shellfish shucking plants was inaugurated here a few years ago. Statewide regulations were devised and we believe the program accounts in large part for the recent reduction of typhoid fever to the vanishing point in San Francisco, the shellfish center of the state.

Mosquito and malaria control have been organized on a wide scale, particularly in the Sacramento and San Joaquin valleys. The malarial fevers and mosquito pests of not many years ago are probably still fresh in many minds.

Rural sanitation has been aided by the distribution of thousands of copies of bulletins giving instructions on rural sewage disposal and water supply, and country homes now generally enjoy piped water and city plumbing. Cropping of sewer farms has been under state regulation since 1917.

Standard of sanitation in the mountain playgrounds have been established on an exceptionally high plane in coöperation with the National Forest Service. The squalid camp grounds and roadsides of fifteen or twenty years ago are seldom seen nowadays. Through the early work of the bureau and the sanitary inspectors, the purity of Lake Tahoe was saved for recreation and water supply. One of the first tasks in 1915 was to undo the running of

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sewers into the lake, then a common sight at nearly every resort.

In twenty years it is easy to forget the innumerable and notorious instances of stream pollution that plagued the state a generation ago. For example, there was Merced River which was receiving sewage in the heart of Yosemite. Auburn Ravine, below Auburn, was substantially a sewer. Yuba River, opposite the Marysville sewer farm, kept two cities in a turmoil. The blue water of the Feather River, at Oroville, could not be used on account of the taint of sewage. Tuolumne River, below Modesto, was a source of endless complaint. The Sacramento River, at Dunsmuir, was notorious for the piles of sewage along its edge. Kings River, at Reedley, aroused Kings County into an expensive litigation against the city. Sonoma Creek, below Sonoma State Home, was a source of stench through a famous vacation belt. Truckee River, at Truckee and at Floriston, was useless even for fishing. Santa Rosa was suffering under a 27-year-old suit by reason of pollution in Santa Rosa Creek. Napa River from Calistoga to its mouth polluted near-by wells, caused offensive odors, and prevented picknicking on its banks. Several of the famous beaches of the state were under quarantine at one time or another. For example, the beaches at Santa Cruz, Capitola, Santa Barbara, Monterey, and the wonderful beaches off Santa Monica, Venice, Hermosa and Redondo and Long Beach. Re-

(Continued on Next Page)

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(Continued from Preceding Page)

cently, a noteworthy dent has also been made in reducing the sewage pollution of San Francisco harbor through the construction of several sewage treatment works.

There were also many notorious sewer farms and sewage treatment works that no longer occupy the picture. For example, the sewer farm at Pasadena, once the occasion of a complaint by six thousand people; numerous sewer farms in Orange County which were replaced by a joint outfall to the ocean; sewage works right in the towns of Gilroy, East San Jose, College Park, Santa Clara, San Luis Obispo, Yreka, and Beverly Hills. There were scores of others of which space does not permit mention.

It is hard to believe that in 1915 cities like Antioch and Pittsburg used river water practically without treatment and at the same time ran their sewage back into the same stream. Imperial Valley and the Mother Lode towns had no treatment of their ditch water, other than passage through small weed grown settling basins. The water supplies of the East Bay cities was a source of daily complaint. The same was true of the water supplies at Los Banos, Eureka, and Beverly Hills. Now excellent filtration works, or in some cases simpler devices, have disposed of the problems of all these places, troublesome alike to customer and management.

The work of state sanitation has followed many other trails, more or less related and contributory to those illustrated. For example, there has been much work on the water supplies of the state with reference to iodin and goiter; fluorin and mottled enamel of teeth; behavior of cyanids in water supplies; field and laboratory studies of the various industrial wastes common to this state, particularly canneries, milk plants and beet sugar factories; pollution studies of streams; hundreds of performance tests of waterworks and sewage treatment works as a means of perfecting and maintaining good operating conditions; mapping nuisances around numerous sewage disposal areas; silicosis hazards in industry, and like tasks. Standards of sanitation for bottled water plants were once devised. Though never adopted, they have been widely distributed and had noteworthy educational influence. An important, in fact indispensable, arm of the bureau has been a sanitary engineering laboratory in which tens of thousands of water samples have been examined and in which test methods have been perfected for the examination of water, sewage, and trade wastes. Research into character of these substances and methods has also featured the laboratory work.

One scarcely realizes the massive improvement in the sanitary engineering environment of the state until viewed in retrospect over such a term of years. In spite of the progress, however, scores of troublesome problems, particularly the expensive and difficult ones, still remain.

How Do Amputations Affect Human Beings?—Dr. Ruth Wilmanns of Basel recently reported in the *Klinische Wochenschrift* follow-up studies of the physical and mental condition of 309 patients who had had an arm or a leg amputated within the last twenty years. The operation had been made necessary by injury in 101 of these cases, by disease in 196 cases and by deformed and crippled conditions in twelve cases. Tuberculosis was the cause in 36 per cent of the cases, arteriosclerotic gangrene and diabetic gangrene in 17 per cent, and malignant tumors in 11 per cent. In ninety-five cases the subsequent condition of the patient could be determined with exactitude. In critical examinations of this sort the individual predispositions of each patient had to be considered. With this in mind, the following conclusions may be set forth: The handicap of a congenitally defective or absent limb is in man surprisingly easy to overcome, a fact already well known in institutions for the crippled. When a limb is lost by amputation during youth, the handicap can be sufficiently mastered. Moreover, traumatic neuroses and personal injury neuroses are scarcely ever found in young persons. Amputation taking place during the period of in-

(Continued on Page 44)

CANNED FOODS AND THE PUBLIC HEALTH

III. Chemical Preservatives

• Some of our readers have inquired as to whether or not chemical preservatives are used in commercially canned foods. In certain instances, this question was inspired by the fact that "canning compounds" were formerly sold for use in home canning and preserving operations. Such compounds, however, are rarely used by the housewife of today, and never by commercial canners.

We wish to state here that *no preservatives are used in commercially canned foods.*

Spoilage of food is principally caused by the growth and multiplication in food of microorganisms such as yeasts, molds, or certain types of bacteria. These microorganisms depend upon the food they inhabit for their nutrition and their life processes produce changes in the chemical or physical characteristics of food, or both. These changes lead us to state that the food has "spoiled".

Like other living organisms, these spoilage microorganisms can grow and multiply in a food only as long as conditions remain favorable for their existence. If any environmental factor, such as temperature, moisture or acidity, becomes unfavorable, these spoilage organisms are destroyed, or their development is inhibited.

All methods of food preservation have a common underlying principle; they all alter some factor or factors in the food environment so as to render conditions unfavorable for the growth or development of spoilage organisms in the food.

Thus, foods may be preserved by freezing or refrigeration, which serves to lower the temperature below that optimum for growth of certain spoilage organisms; dried foods keep because the moisture content has been reduced to an unfavorably low level; certain fermented foods keep because of the development of high acidity. All of these methods produce changes in the environment in which the food spoilage organisms must live.

Commercial canning is a method of food preservation in which the temperature factor in the environment is raised to a level above that optimum for growth of spoilage microorganisms. Thus, canned foods keep because in their preparation they are subjected to heat processes in hermetically sealed containers. The thermal processes raise the temperature of the foods to those temperatures at which the most resistant spoilage organisms present cannot grow or survive. (1)

The hermetic seal insures protection against future infection of the food by such organisms.

Thus, commercial canning is a method of food preservation which has for its basis the thermal destruction of spoilage organisms; no chemical preservatives are needed to insure preservation of the foods, and, consequently, none are used.

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(1) The Microbiology of Foods, F. W. Tanner, Twin City Pub. Co., Champaign, Ill., 1932

This is the eleventh in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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(Continued from Page 42)

volution or senility, when the patient no longer possesses the agility of youth, produces quite different results. The psychic condition is different; optimism and vital energy together with a stern will to overcome the handicap are no longer present. In middle-aged adults the reaction to the loss of a limb depends largely on idiosyncrasy. Intellectual predisposition, of course, plays a decisive part in such cases, and external factors, such as environment, early training and education, are important. The occupational background enters into the picture. Noteworthy are the differing reactions produced by the type of indemnification received for the injury by the patient. When it takes the form of an income the recipient regards the indemnity as insufficient, whereas settlement in a lump sum is seized on as a welcome prize. This lump-sum settlement has no noticeable influence on the rehabilitation of the crippled person, but the lifelong income often prevents him from striving with all his energy for the restoration of his working capacity.

The results of the follow-up examinations were excellent throughout; only in five cases were suppuration of the sutures, or decubital ulcers found. Twenty-eight of the patients complained of areas of pressure during the heat of summer and also of abscesses such as result from excessive perspiration. The most common complaint among patients who had undergone Pirogoff's amputation was the constant coldness of the stump. In addition, the skin of the stump-end frequently in such cases inclined to cornification. Quite frequently pain resulted in one-legged patients from the heavy burden of the single leg. In nearly all these a pes valgus was noted. The older patients complained of a slight feeling of fatigue in the leg and the majority complained of backache. From the loss of arm or leg, scoliosis in varying degrees had resulted; no connection was found, however, between the magnitude of the loss and the severity of the scoliosis. Of the ninety-five patients, sixty-one still suffer pain, chiefly induced by the state of the weather; often they complain of imaginary pains. Experiments with prostheses are wholly individual. Here, as in all these questions, personality as well as external circumstances play a different part in each case. Systematic training (schools for the one-armed, walking schools) is, moreover, of particular importance.—*Berlin Letter, Journal of the American Medical Association.*

Medical Problems in India.—Speaking to the Medical Missionary Association meeting in Melbourne, Dr. H. Thomas of Madura, Southern India, described the appalling need for extension of medical service in India. It was difficult to know whether preventive or curative medicine was the more urgent, but curative treatment paved the way toward gaining the confidence of the villagers. In India 8,500,000 persons were born and 6,500,000 died every year. The present rate of increase was, therefore, 2,000,000 a year, and if the fearful infant mortality should be reduced it would be necessary to provide employment and an object in life for a still greater population. That problem would be faced as soon as preventive medicine became more efficient. Despite the country's enormous wealth there was fearful poverty in India, and the per capita wealth was only £19, compared with £450 in England. Only 13.9 per cent of the Indian male and 2 per cent of the female population were literate. The problem of medical work was increased by the fact that 300,000,000 of the 350,000,000 population lived in villages. Centrally placed hospitals were usually established, as transport facilities were good, and leper and tuberculosis clinics and dispensaries had been establishd in surrounding villages. More than 50 per cent of the hospitals were self-supporting. Dealing with the problem of child marriage, it was necessary to study customs and proceed by gradual evolution rather than by drastic change. The early maturity of Indians was one of the reasons for child marriage. It was hard to make the people understand that their early maturity did not mean marriage. They should be taught a moral sense, and a great service would be done by showing them that there was something beyond satisfaction of passion. Many missionaries felt the strain of the tropics,

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and time and again the medical men had to deal with cases of men and women missionaries with a psychologic imbalance. This caused expense to the mission board and disappointment to the worker, and indicated that a psychologic examination was as essential as a medical examination for intending missionaries. There was a tremendous lack of proper equipment and staff in Indian hospitals, and in the 253 mission hospitals and 6,000 government hospitals there were only 73,000 beds, or one bed for each 5,000 of the population.—*Australian Letter, Journal of the American Medical Association.*

Leprosy Organism Preserved Alive.—Definite progress in the baffling effort to keep alive the causative organism of leprosy outside the human body so that it might be clinically studied and treated, is reported by Dr. A. J. Salle, assistant professor of bacteriology at the University of California. Clinical tests, made originally at the Kalihi hospital on the outskirts of Honolulu, in which the organism was kept alive for an indefinite period, were successfully checked by Doctor Salle in six months of experimentation at the federal leprosarium at Carville, Louisiana. These latter experiments, made with bacteria from eleven different patients, not only produced the same result in each instance, but produced results identical with those of the Honolulu tests.

I hope that here in America more and more the ideal of the well-trained and vigorous body will be maintained neck and neck with that of the well-trained and vigorous mind, as the two coequal halves of the higher education for men and women alike. The strength of the British Empire lies in the strength of character of the individual Englishman taken all alone by himself. And that strength, I am persuaded, is perennially nourished and kept up by nothing so much as by the national worship, in which all classes meet, of athletic outloor life and sport.—William James (1890).

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Further Development of the Social Medical Program.—In the competition for votes at the general election, which is now proceeding, each party dilates on the benefits it is prepared to confer on the country if returned to power. One of these is extension of the public health service. In an election speech Sir Kingsley Wood, minister of health in the late government, said that development of the social services formed one of the most important parts of the government's election program. What was needed was a comprehensive plan for the development of the public services as a whole, with two main objects—protection of the community from unhealthy surroundings and complete provision for every individual of such personal services as might be needed at the various stages of life. In short, the policy was to provide decent conditions and the health to enjoy them. Considerable progress had been made toward the attainment of the first aim. The first essential of a healthy environment was a home. The national government had already a comprehensive housing policy, which was being carried out rapidly. It had made a direct attack on the two evils of bad housing—slums and overcrowding. Sixty thousand slum houses had been pulled down and already 280,000 persons had exchanged the squalor of slum life for modern healthy homes.

Maternity and Child Welfare — Steady progress had been made with the provision of antepartum clinics, which increased from 1,101 in 1930 to 1,493 in 1934, and of hospital accommodations. This progress must be continued. But while the work had resulted in a gratifying reduction of infant mortality from 128 per thousand live births at the beginning of the century to 59 in 1934, there had been no reduction in the maternity mortality. The causes of this failure were not yet fully understood, and the government was giving unremitting attention to the problem. Notwithstanding the good work that was being done, there were in many areas a gap in the health services and an urgent need for a salaried midwife service to secure for every woman who required it skilled care in childbirth. If returned to power, the government would introduce legislation for this purpose. Further provision was required for the needs of children under school age. In areas where the mothers could not give children the requisite care and attention, the government would encourage the provision of nursery schools in which good food, fresh air, and skilled attention and training would give the youngest children a good start before elementary school days began. For the health of the school child elaborate provision was made in the school medical service, but in many parts of the country facilities for treatment, particularly dental treatment, were in need of expan-

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sion. These deficiencies would be remedied, and more remedial and preventive treatment in the form of orthopedic centers and open-air schools would be provided. At present there was no medical supervision between the time when a child left school and the age of sixteen, when he became eligible for health insurance. That gap would be filled. After children left school, health could be maintained only by systematic physical education, in which games and physical exercises played an important part. The government would promote a scheme of physical education covering all types of schools. — *London Letter, Journal of the American Medical Association.*

Cathartic to Mix in Bread Costs Food Fakers Six Hundred Dollars Fine.—A powerful coal-tar cathartic has no proper place in bread or any other product sold as a food. The Food and Drug Administration regarded phenolphthalein as an adulterant when it was used as an ingredient of what the manufacturer called a "laxative health bread." The federal court at St. Louis, Missouri, agreed with the food officials and imposed a $600 fine on Edward Ownen, Frank Dawdy, and Glenn Allmon, trading under the fancy name of Bakers' Research Co.

This concern had been selling "Owen's Viti-Veg," a mixture of flour, bran, and between 10 and 12 per cent of phenolphthalein, a coal-tar cathartic. This mixture was recommended to bakers for addition to their regular bread mix. The product was to be marketed as "laxative health bread."

Bread, a staple article of the diet and consumed by everyone from infancy to old age, should not be used to mask the presence of a powerful laxative, is the opinion of the Food and Drug Administration. W. G. Campbell, Chief of the Administration, remarked today, "It is peculiarly appropriate that the deliberate perpetrators of this, one of the most flagrant types of adulteration uncovered in recent months, should receive one of the largest recent penalties—$600." Shipments totaling some seven hundred packages of "Viti-Veg" were seized and destroyed in June, 1935.

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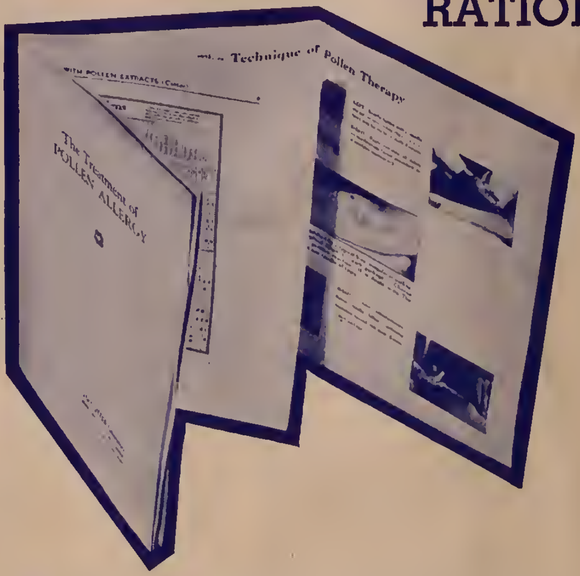
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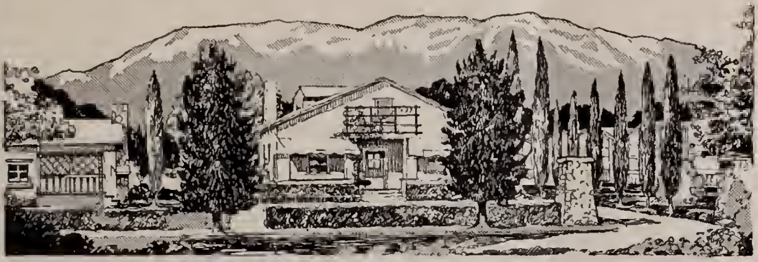

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Sacramento—State Office Building, Tenth and L Streets. CApital 2800.
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The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

ALUM ROCK SANATORIUM
For Treatment of Tuberculosis
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CALIFORNIA SANITARIUM
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CANYON SANATORIUM
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COMPTON SANATORIUM AND LAS CAMPANAS HOSPITAL, COMPTON
Neuropsychiatric and General
Compton, California

FRANKLIN HOSPITAL
Limited General Hospital
Fourteenth and Noe Streets, San Francisco

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General Hospital
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"A Nation of Medicine Drinkers." — Sir Kingsley Wood, the minister of health, attended a meeting of the London Insurance Committee (a committee of physicians, which administers the panel system). He made a comparison between the conditions of today and those of 1917-1918, when he himself was chairman of the committee. They showed a tremendous increase not only in the numbers entitled to medical benefit, but in the number of physicians. The latter had increased from 1,300 to 2,174, and it was satisfactory to note that the payments had gone up from $2,330,000 to $3,500,000. But the figures which took his eye were those indicating a rise in the number and cost of the prescriptions in London. The prescriptions dispensed in the year he was chairman totaled 4,377,000; last year they numbered 8,482,000. This was partly accounted for by the increase in the number of the insured persons and the fact that new and expensive medicines had been introduced. But we in England were apparently becoming "a nation of confirmed medicine drinkers," and he doubted whether that was to our good. In England many patients had come to regard a visit to the doctor as synonymous with the receipt of medicine. Scotland, however, had no such love for bottles of medicine. The result was that the cost of medicine under the panel in England exceeded that in Scotland by 58 per cent. There were no known facts connected with the incidence of disease to account for that wide difference. He did not think that the standard of treatment in Scotland was lower or the results of treatment less satisfactory. A considerable portion of the outlay on drugs could be eliminated with advantage to the proper treatment of the people. Sir Kingsley did not go to the root of the matter, which is that the English working class has a profound belief in bottles of medicine and likes to take it. Under the panel system it is to be had without payment, and physicians do not care to endanger their popularity by refusing to prescribe. Of course, the placebo has always existed in medical practice, and sometimes is unavoidable; but when it is to be had only for the trouble of visiting or sending to the panel physician the result is obvious. As reported previously in *The Journal,* a small payment for each bottle of medicine has been suggested as a check, and this has actually been adopted in Canada.—*London Correspondent, Journal of the American Medical Association.*

Connecticut is Thirty-Ninth State to Become Free of Cattle Tuberculosis.—The United States Department of Agriculture has added Connecticut to its list of states practically free of tuberculosis. This brings the number of states in the modified accredited area to thirty-nine.

Tuberculosis-eradication work among the cattle in Connecticut was begun more than a quarter century ago and has been in progress in coöperation with the Federal Government since 1918.

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Efficiency in Death Registration.—The United States Bureau of the Census, which receives copies of all birth and death certificates that are filed in California, has advised the Division of Vital Statistics that only 1.03 per cent of death certificates were queried in 1934 because of indefinite statements relative to causes of death. That bureau is most meticulous in ascertaining the true cause of death in order that its statistical tabulations may be reliable. California physicians through their efficient reporting of deaths have enabled this state to make a commendable record. With the birth certificates only one-half of one per cent of those from California were queried in 1934. It is interesting to note that Massachusetts is the only state that excelled California last year in making this enviable record in the proper filing of both birth and death certificates.

Reduction in Industrial Accidents.—According to investigations instituted by Oberregierungsrat Wicke, a general reduction in the number of accidents to German workmen is observed. According to the figures published by the industrial unions, conditions over the period 1929-1934 were as shown in the following table. This observation is the more surprising when one considers how many among those workmen recently put to work have, through enforced idleness, become disaccustomed to work. Wicke holds that this reduction in the number of accidents is ascribable particularly to the indefatigable accident prevention campaign that has been waged in recent years. In the building trades it has been established that, in 1932, 7.87 per thousand full-time workmen suffered their first compensated accident and that 0.55 of these accidents (per thousand workmen) proved fatal. In 1933 the corresponding figures were 5.19 and 0.43; in 1934, 4.80 and 0.45. In 1932, in underground operations 15.48 per thousand full-time workmen suffered their first compensated accident, and 0.92 of these accidents (per thousand workmen) proved fatal. The corresponding figures for 1934 were 5.75 and 0.66. During the first seven months of 1935 there was a still further decrease in the number of accidents.—*Berlin News Letter.*

				Number of Fatal Accidents	
Year	Number of Registered Full-Time Workmen	Total Number of Workmen Compensated the First Time for Accident	Number of Compensated Accidents per Thousand Full-Time Workmen	Totals	Per Thousand Full-Time Workmen
1929	10,770,361	66,494	6.17	4,913	0.46
1930	9,984,123	61,965	6.21	4,476	0.45
1931	8,394,347	47,369	5.64	3,221	0.38
1932	7,158,279	27,672	3.87	2,311	0.32
1933	7,738,897	24,139	3.12	2,402	0.31
1934	9,413,493	24,394	3.13	2,317	0.25

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Rates for these insertions are $4 for fifty words or less; additional words 5 cents each.

COACHING FOR STATE BOARDS—MEDICAL AND Dental. Arthur H. White, M. D., Suite 1005, Flood Building, San Francisco.

Value of Eggs in the Diet.—Most housekeepers will welcome the approach of the spring season, for it brings within reach many of the foods that have been used sparingly during the winter months. Among these important foods are eggs, which from now on will be gradually dropping in price as the supply becomes more plentiful.

Extending the use of eggs is indeed fortifying the value of the diet. Eggs are high in phosphorus and iron and so supplement the diet which is quite apt to be low in these elements. It is largely for the iron that physicians recommend the addition of egg yolk to the diet by the end of the first year and the use of an egg daily thereafter. Such foods are introduced into the young child's diet cautiously, however, as some children take a dislike to new foods and occasionally eggs cause a digestive disturbance. Whether eggs are actually harmful to such individuals, however, can be easily determined by skin tests by the physician.

Eggs are one of the few foods rich in vitamin D, another reason why they are introduced early in the child's diet. While nearly all children now are given cod-liver oil or some fish-liver oil for its vitamin D as a protection against rickets, the value of egg yolk in this regard is not fully appreciated by all mothers. The fact that egg yolks are rich in vitamin D, however, points to the advisability of using them regularly the year round, especially in the winter season when the days are shorter and ultra-violet rays of the sun are thus less available. Because it is these rays of the sun which activate vitamin D in the skin on exposure out of doors, a liberal use of eggs is recommended during this season when children play out of doors a shorter time.

Eggs have an excellent quality protein and are also rich in vitamin A, that growth factor so essential in the child's diet. The yolk of the egg with its fat, phosphorus, iron, and vitamins A and D, is more valuable than the white, which is principally protein and not so essential when milk is also liberally used.

Those qualities of eggs which make them valuable in child nutrition also recommend them for use in cases of anemia and other wasting illnesses. They have been so used for this purpose long before vitamins were known or their mineral content fully appreciated. Eggs, in addition to milk, vegetables, and fruits, have now been included in the class known as the "protective foods" because they contribute so many of the vitamins and mineral elements essential to health.

In purchasing eggs it is well to know that the color of the shell has no bearing on the nutritive value of the eggs, though markets in many cities claim a higher price for white or brown eggs according to which sentiment prevails in that district. More is being done than ever before to maintain the quality of eggs. Poultry raisers are feeding cod-liver oil or making sunlight available to their flock to increase the vitamin D content of the eggs. Eggs are being shipped and handled more carefully, and methods of refrigeration are gradually making it possible to maintain the natural freshness of eggs held in storage.—*Connecticut Health Bulletin.*

I hope that here in America more and more the ideal of the well-trained and vigorous body will be maintained neck and neck with that of the well-trained and vigorous mind, as the two coequal halves of the higher education for men and women alike. The strength of the British Empire lies in the strength of character of the individual Englishman taken all alone by himself. And that strength, I am persuaded, is perennially nourished and kept up by nothing so much as by the national worship, in which all classes meet, of athletic outdoor life and sport.—William James (1890).

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BOOK REVIEWS

List of Books Received

BOOKS RECEIVED

Pediatric Nursing. By John Zahorsky, A. B., M. D., F. A. C. P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine; and Pediatrician-in-Chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by Beryl E. Hamilton, R. N., graduate of St. Luke's Hospital, St. Louis. Cloth. Pp. 568, with 144 illustrations in the text and seven color plates. Price $3. St. Louis: The C. V. Mosby Company, 1936.

Medical Papers. Dedicated to Henry Ausbury Christian, Physician and Teacher. From his present and past associates and house officers at the Peter Brent Brigham Hospital, Boston, Mass. In honor of his sixtieth birthday, February 17, 1936. Cloth. Pp. 1,000. Baltimore: Waverly Press, Inc., 1936.

An Analysis of the "De Generatione Animalium" of William Harvey. By Arthur William Meyer, Professor of Anatomy, Stanford University. Pp. 167. Price, $3. Stanford University: Stanford University Press, 1936.

Psychology of Sex. A Manual for Students. By Havelock Ellis. Cloth. Pp. 377. New York: Emerson Books, Inc., 1935.

BOOK REVIEWS

Pediatric Nursing. John Zahorsky, M. D., St. Louis University. Assisted by Beryl E. Hamilton, R. N. Pp. 568, 144 illustrations. Price, $3. C. V. Mosby Company, St. Louis.

A nursing manual that is quite complete and in accord with modern opinion. Satisfactory for training school and graduates.

Medical Papers. Dedicated to Henry A. Christian, M. D., by Present and Past Associates. Waverly Press, Inc., Baltimore. Pp. 1,000.

It is hardly necessary to comment on Doctor Christian and his service in the Peter Brent Brigham Hospital. It is quite proper and a merited tribute that his associates, house officers and students should join in compiling this volume in honor of his sixtieth birthday. Each paper is not only a testimonial but also a recognized contribution to medical literature. A wide range in medicine is covered.

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(Continued on Next Page)

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BOOK REVIEWS

(Continued from Preceding Page)

A Textbook of Surgery. By American authors. Edited by Frederick Christopher, B. S., M. D., F. A. C. S., Associate Professor of Surgery at Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Pp. 1,608, with 1,349 illustrations on 730 figures. Philadelphia and London: W. B. Saunders Company, 1936. Cloth. $10 net.

This text is characterized by its dominant plan of presenting a concise, authoritative text on surgery. Many well known collaborators have aided in its writing. It imparts all of the tested and accepted principles of surgery. Well written and arranged, with good illustrations, valuable references, this new textbook enables the owner to have at his command a sound helpful surgical guide and consultant. The chapters on head injuries and fractures are commended to every medical man. Industrial surgeons will find much to aid them in their practice.

Finally, it is one of the best surgical texts of the last two years. It constitutes a valuable contribution to surgical literature.

The True Physician. Wingate M. Johnson, M. D. Cloth. Pp. 157. Price, $1.25. Macmillan Company, New York.

This is a delightful, wholesome and sound collection of advice that can be read with profit by every physician—old or young. To the doctor who has just entered practice we commend reading and applying these ideals and helpful advice as he begins his professional career. It will be appreciated as a gift by the graduate of this year.

The author covers in interesting form, and based upon personal experiences and contacts, all of the relations that a physician encounters with patients, citizens, business, fellow physicians, society, family, science and himself. Ideals are erected, pitfalls are pointed out, and helpful suggestions are advanced. Our recommendation is to secure this refreshing book, read it, apply it and pass on its advice.

(Continued on Page 17)

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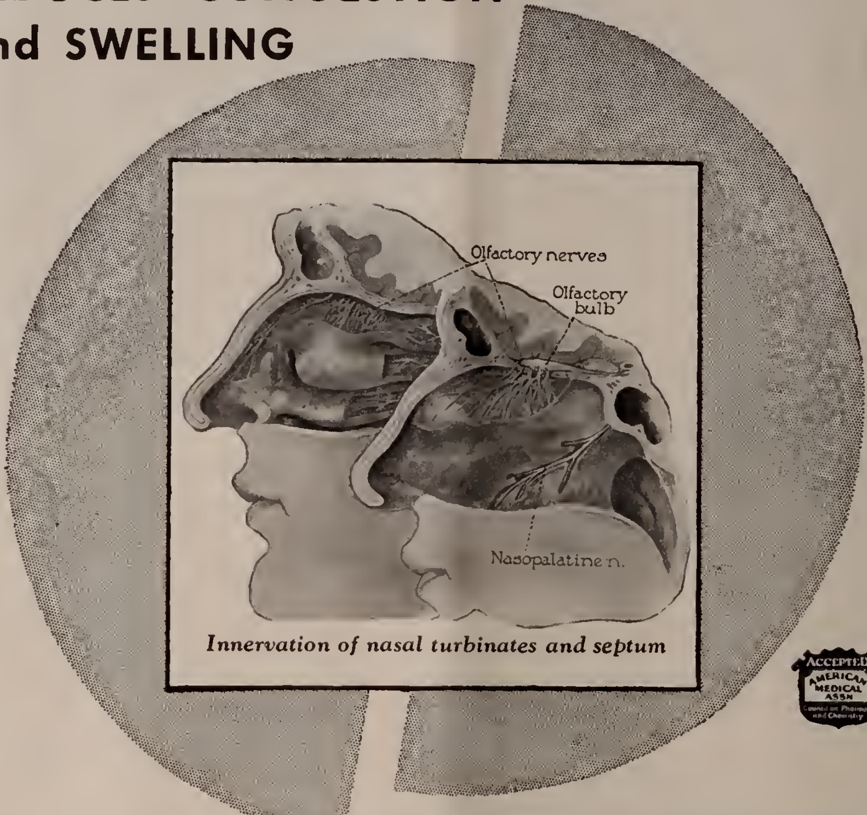

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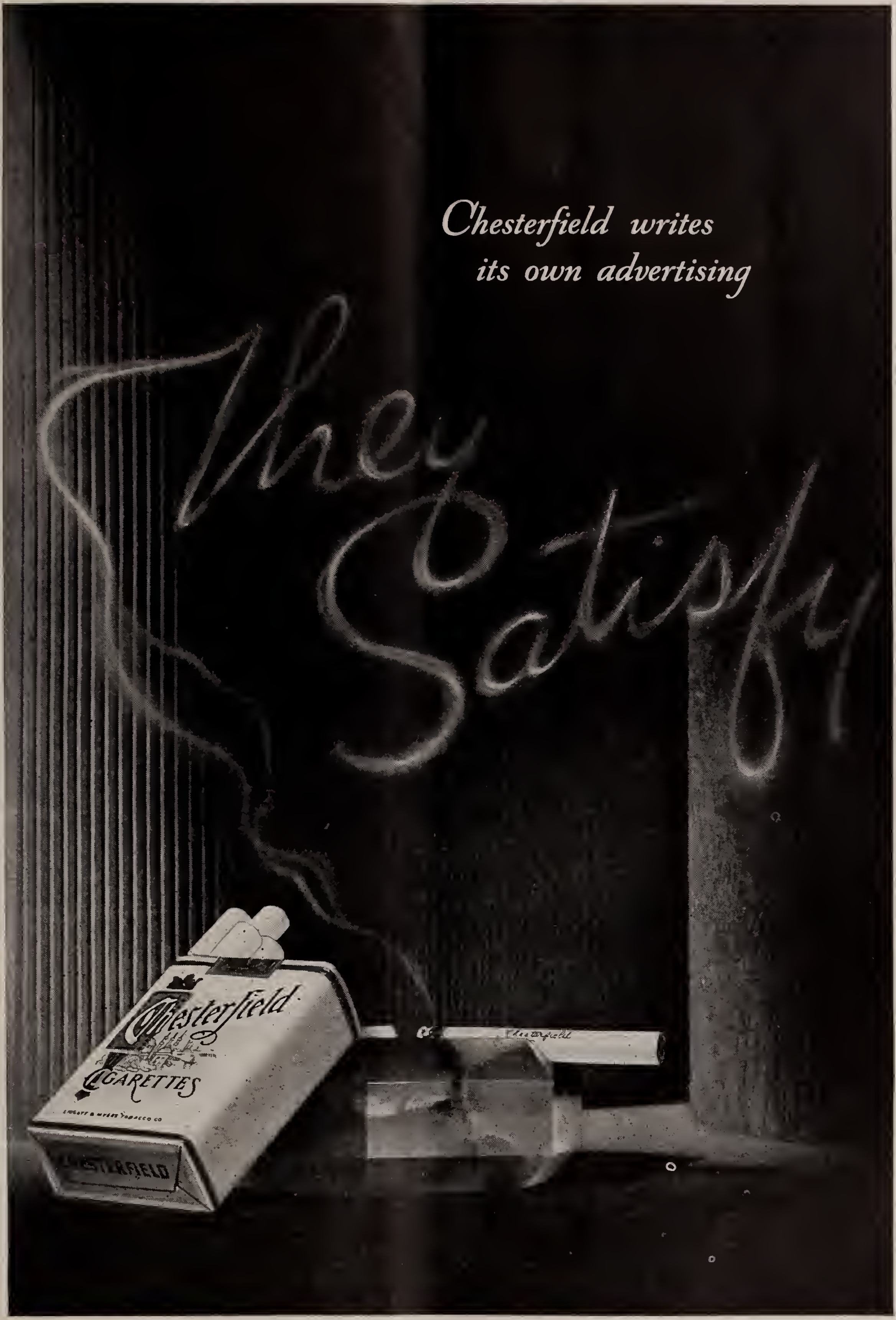
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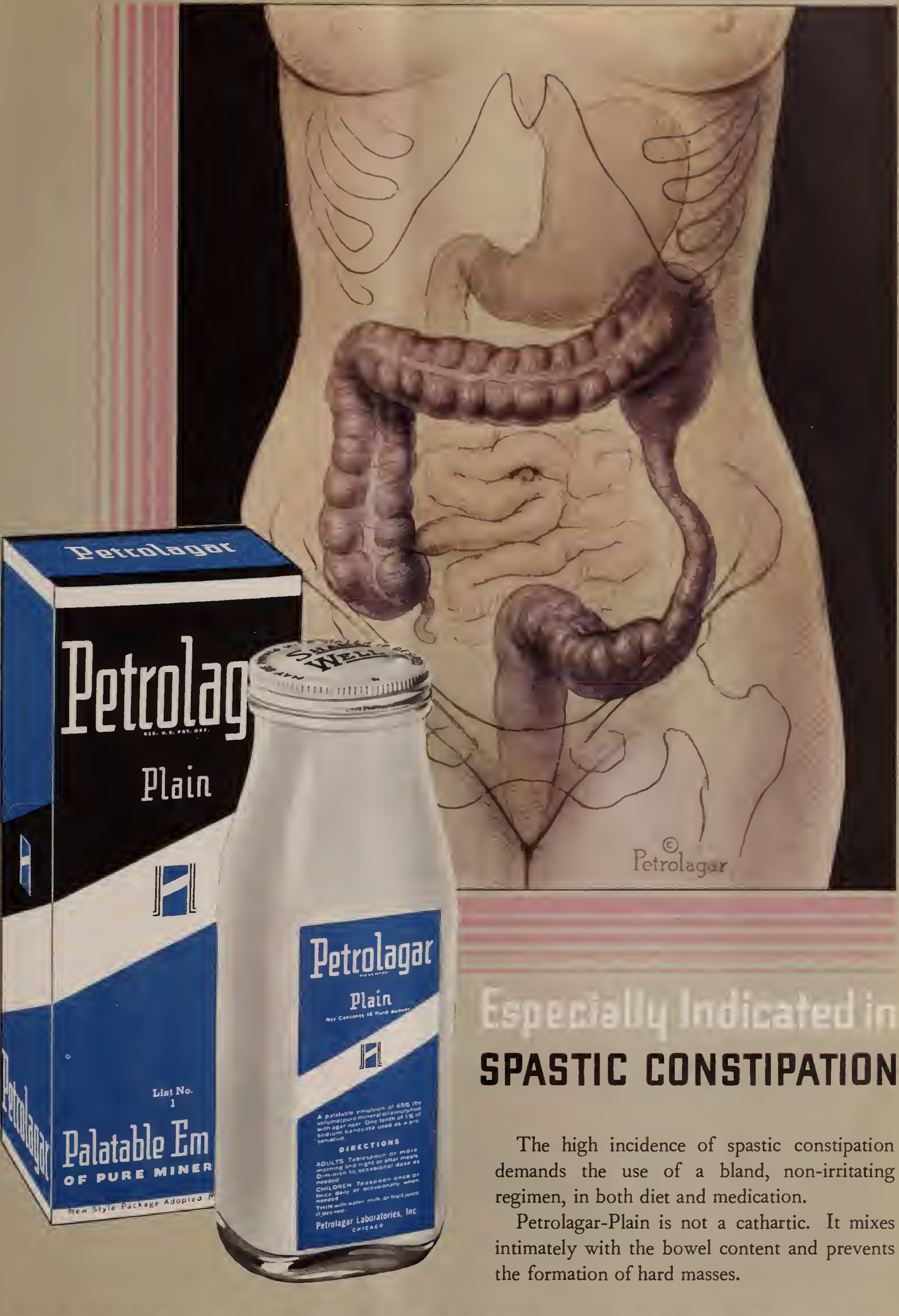
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BOOK REVIEWS

(Continued from Page 12)

An Analysis of the "De Generatione Animalium" of William Harvey. By Arthur William Meyer, Professor of Anatomy, Stanford University. Stanford Press. Pp. 165. Cloth, illustrated. Price $3.

Although Harvey's "Exercitationes de Generatione Animalium" has several times been declared of equal merit with his "De Motu Cordis" and has also been declared to be "one of the masterpieces of English medicine," it has remained for Doctor Meyer to make the first comprehensive, critical analysis of this remarkable and perplexing treatise. In none of the 144 Harveian Orations given during the past 274 years has this treatise received the attention it deserves.

Every effort has been made to consider this document in the light of the time of Harvey and from the standpoint of the history and science of embryology. Misconceptions are analyzed, controversial points illuminated, and its merits emphasized. Not only were all available materials examined, but a new (unpublished) translation of a first edition was made expressly for Doctor Meyer's use. The opinions of Harveian Orators and biologists, physicians, and others have been carefully considered and discussed by Doctor Meyer in making his study and in arriving at his conclusions.

This analysis is most interesting and instructive. It redounds to the author's honor.

Our chief enemies at present are heart disease, cancer, pneumonia, tuberculosis, and syphilis. If the full facts were known, as Doctor Osler said, syphilis would probably come first. Syphilis is the biggest killing disease in the community. It and tuberculosis are undoubtedly the greatest present contributors to the total mortality prior to the approach of old age. By the removal of tuberculosis and syphilis, most of the preventable deaths from the age of 15 to 65 would be avoided.—Sir Arthur Newsholme, M. D.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 456)

thology in the University of California, has been the cause of a number of innovations in the methods of teaching this subject. The department is now composed of Professor Gay and his associates: Glanville Y. Rusk, A. B., M. D., assistant professor of pathology; J. G. Fitz Gerald, M. B., associate professor of bacteriology; Adelbert W. Lee, M. D., instructor in pathology; Ivan C. Hall, A. B., assistant in bacteriology. . . .

From an article on "606 and Eye Diseases" by M. W. Frederick, San Francisco.

To destroy the parasite without destroying the host is a problem that has often been presented to us in medicine, and never in a more concrete form than it has since the introduction of the organic arsenic compounds for the treatment of diseases due to protozoa and spirilla. . . .

Regarding the American Medical Association Meeting at Los Angeles, June 26-30, 1911.

For the information of members who may be receiving inquiries regarding hotel and hall headquarters and hotel rates, the following information is printed:

Sections	Name of Halls
Medicine	Majestic Theater
Nervous	Walker (McKinley)
Children	Walker (Lincoln)
Dermatology	Blanchard (Broadway)
Pathology	Blanchard (Symphony)
Surgery	Baptist Auditorium
Genito-Urinary	Blanchard (Music)
Women	Baptist Auditorium (Beren)
Preventive Medicine	Hamburger's
Pharmacology	Walker (Garfield)
Eye	Pro-Cathedral Parish (second floor)
Ear	Pro-Cathedral Parish (first floor)
Stomatology	Dental College
Commercial Exhibit	Hamburger (fourth floor)
President's Reception	Shrine Auditorium
Smoker	Hamburger's (roof)
General Headquarters	Hotel Alexandria

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 456)

yesterday afternoon on charges of violating the State Medical Act and fined $150 and granted two years' probation when he pleaded guilty before Justice Grandin H. Miller. He was arrested by Constables William Condon, Larry Harris, and Harry G. Henderson, special agent of the State Board of Medical Examiners, on a complaint sworn to by Cecil Goucher of the Board of Examiners. He was charged with issuing medicinal herbs to patients in violation of his privileges as a chiropractor." (San Jose *News,* March 17, 1936.)

"Whether the State or Federal Government shall tell doctors what they shall do was the unique question raised yesterday in the United States Circuit Court of Appeals. It came up in the case of Drs. F. T. Cary and E. H. Williams of Los Angeles, convicted of selling morphin by prescription, allegedly in violation of federal laws. Doctor Cary was sentenced to a year in a federal road camp, and Doctor Williams placed on two years' probation. Their defense is that, as they are licensed by the State, the Federal Government has no right to interfere with them in prescribing narcotics, even if it is for addicts." (San Francisco *Chronicle,* March 20, 1936.)

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"Dr. Lee E. Smith, forty-five, Oakland physician, was found guilty of reckless driving yesterday by Police Judge Edward J. Tyrell." (San Francisco *Examiner, East Bay Section,* March 19, 1936.)

"Conviction of Dr. Francis D. Coltrin, seventy-seven, Santa Ana physician, on charges of second degree murder, was upheld yesterday by the State Supreme Court. He was found guilty of performing an illegal operation on a sixteen-year-old girl, February 4, 1935." (Los Angeles *Illustrated Daily News,* March 20, 1936.)

"A decision given by a jury three years ago in the court of the late Superior Judge A. B. McKenzie at Martinez, in favor of Dr. H. E. Peters, has been upheld by the Appellate Court. . . . A jury decided in favor of the Pittsburgh physician on March 8, 1933." (Pittsburgh *Post Dispatch,* March 15, 1936.)

"An Associated Press Dispatch from Phoenix today announced that Federal Judge J. A. Baldwin had refused bond to Dr. O. Charles Long, Brawley physician, sentenced last Wednesday to serve eighteen months in prison upon conviction on a charge of selling narcotics in violation of the federal laws." (Brawley *News,* March 7, 1936.)

"Extradition papers were signed by Governor Merriam today for the return of Dr. Jasper J. Mayer, former Ojai Co-Operatives president, who, Mrs. Anna Bateman, wealthy Ojai woman charges, won her confidence and then made her the victim of a $13,000 swindle. . . . Mayer was arrested as he stepped from a westbound American Airlines plane Thursday after reportedly arranging to meet Mrs. Bateman at the air terminal to persuade her to drop civil charges filed in the Superior

(Continued on Page 20)

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Blepharitis	8 "	6 "	1 "
Furunculosis	25 "	14 "	- "
Carbuncles	3 "	1 "	- "
Others	12 "	14 "	2 "
Total	51	56	9

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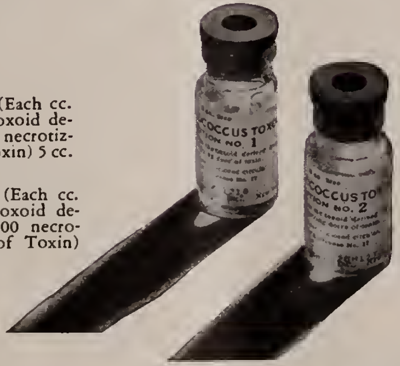

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 18)

Court. Instead of finding Mrs. Bateman at the airport, however, he found officers awaiting his arrival, armed with a fugitive warrant for his arrest" (Los Angeles *Times,* March 29, 1936.) The violator files of the Board of Medical Examiners show prior difficulties involving Jasper J. Mayer, who is not licensed to practice under the Medical Act.

"Forging the names of San Diego physicians to narcotic prescriptions was reported by police to have been admitted yesterday by Miss Dorris Morris, forty-one, arrested at her Fourteenth Street home by John Denison, federal agent, and Claude Pickering of the police. Miss Morris, who will be arraigned today before P. M. Andrews, United States Commissioner, was quoted as saying that in the last month she had forged the names of at least six prominent physicians to forty-two prescriptions. Her first work in preparing fictitious prescriptions was erasure of a medicine prescribed for a cold and filling in 'fifteen grains of morphin' in its stead, leaving the bona fide signature of the physician unaltered." (San Diego *Union,* March 24, 1936.)

"Death of a 38-year-old woman, mother of two children, was made the basis for a $100,000 damage suit filed in the Superior Court here yesterday. The suit alleges the woman's death followed an illegal operation. Named as defendants were the French Hospital, Dr. Reginald F. Grant, staff physician; Lela C. Geddes, Eland Swindell, and several Jane and John Does. Plaintiffs in the action filed by Attorneys Henry Hubbard and Reed M. Clarke, were the two children of the dead woman, Mrs. Florence Alves, formerly of 129 Spruce Street, Redwood City. Three of the defendants—Henion, Mrs. Geddes, and Mrs.

(Continued on Page 22)

13,198 cases of syphilis

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*Martenstein, H.: Syhilis Treatment: Enquiry in Five Countries, *League of Nations Quart. Bull. Health Organ*, 4: 129, 1935.

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American Medical Association Essentials for An Approved Clinical Pathologist

An approved clinical pathologist should be a licensed graduate of medicine. He shall have specialized in clinical pathology, bacteriology, pathology, chemistry, and other allied subjects for at least three years, and he should be reasonably familiar with the manifestations of disease in the body. The director of a clinical laboratory shall be on full time or have definite hours of attendance, devoting the major part of his time to this specialty. A clinical laboratory is an institution organized for the practical application of the fundamental sciences by the use of specialized apparatus, equipment and methods, for the purpose of ascertaining the presence, nature, source, and progress of disease in the human body.

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 20)

Swindell—were alleged 'to be copartners,' and it was added that Mrs. Geddes was known also as 'Dr. Donovan and Dr. West, although she was not, in fact, a doctor.' On June 18, 1935, the complaint asserted, the Geddes woman and Mrs. Swindell performed an illegal operation upon Mrs. Alves. Later they had her removed to the French Hospital. There, it was alleged, Doctor Grant agreed to treat and care for the woman, 'but failed to give her any treatment whatever for a period of twenty-four hours after admission, although each of them knew she required immediate surgical care.' Mrs. Alves died two days later, it was charged. Allegations were also made that the defendants conspired to bribe an aunt of the dead woman to conceal the cause of death. . . ." (San Francisco *Examiner,* April 1, 1936.)

"Dr. Thomas Flint, thirty-two, formerly of the Springville Conservation Camp, today is en route to Medford, Oregon, in custody of Sheriff William Howell. He is wanted in the Oregon city for assertedly issuing worthless checks. Jail attachés say the doctor is also wanted in Fresno for a similar offense. Flint is purported to have told local officers that his father is a former state senator in Oregon." (Dispatch dated Visalia, April 11, and printed in the Fresno *Bee and Republican,* April 12.)

"'Dr. F. W. Steddom, former city health physician, late yesterday was convicted on sixteen counts of violation of the State Narcotic Act by a jury in Municipal Judge Oda Faulconer's court. He will be sentenced next Tuesday afternoon. Doctor Steddom was found guilty of issuing prescriptions for narcotics to addicts and other persons for purposes other than treatment of diseases. His trial lasted two weeks. (Los Angeles *Illustrated Daily News,* March 27, 1936.)

Further History of the Care and Feeding of the Dionne Quintuplets.*†—The details of the birth of these infants and their immediate care have already been recorded.[1] To that report I would like to add some further history of the care and feeding up to the age of ten months.

Shortly after birth, when the babies were breathing and emitting little mewing cries, they were wrapped up in the only coverings available, placed on the bed, and covered with a heated blanket. Soon after this a laundry basket was obtained, and the babies were carefully tucked in this and kept warm by blankets heated in the oven. Later on in the day the nurse brought with her the first hot water bottle we used. On the third day an incubator was presented to us, and the three smallest infants were transferred to this. Within a week, a second incubator was obtained and then, finally, three more were secured, so that a separate one was available for each. The first incubator was made with a hollow frame, a glass hinged top, and fitted with a thermometer and a sponge holder. It was heated with hot water in a copper tank. The other incubators were ingeniously constructed and patterned after an old picture of Tarnier's, as shown in Cook's "Obstetrics." The second type of incubators were heated by earthenware containers, which are known in the country as "little pigs." It was necessary at this time to employ an orderly, and his whole time was spent in keeping the fire going in the cook stove, maintaining the proper temperature of the water in the incubator containers, and helping with the washing. The temperature of the incubators was kept between 87 and 90 degrees Fahrenheit for the first days, but as time went on this was gradually

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* Reprinted from the *Canadian Medical Association Journal,* 34:26-32 (January), 1936.

A leaflet reprint of this article, on application, will be mailed by Mead, Johnson & Co. (one of the advertisers in California and Western Medicine.)

Read before the fourth district of the Ontario Medical Association in annual session, Niagara Falls, October 23, 1935.

† By Allan Roy Dafoe, O.B.E., M.D., Callander, Ontario.

[1] Dafoe, A. R.: J. A. M. A., 103:673, 1934.

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lowered and maintained at 84 degrees Fahrenheit. The humidity within the incubators was measured and kept between 50 and 55 degrees by the use of sponges soaked in hot water.

A room next to the mother's bedroom was cleared and made into a nursery. By the end of the fifth day we had three graduate nurses, a cook-general, and an orderly, and for the first time we had a breathing spell. This gave us an opportunity to prepare plans for the protection of the babies and to obtain the necessary equipment for their care.

The babies were born about two months before full term and presented the typical appearance of premature infants, being bluish black in color, with bulging foreheads, small faces, wrinkled skin and no subcutaneous tissue, enlarged soft "tummies," flaccid muscles, and spider-like limbs. At times the breathing would almost stop, then pick up and race along above the normal rate. For days it seemed impossible that the tiny spark of life in each of their bodies would prove sufficient to produce a continuous functioning of the various systems in the body machine. The babies had to be watched every minute and stimulated frequently, to arouse them out of their attacks of cyanosis and dyspnea. Within the first week cylinders containing oxygen 95 per cent, carbon dioxid 5 per cent, and fitted with a reducing valve and ordinary inhalator were obtained. This gas mixture replaced all other methods of stimulation. It was a most valuable measure in relieving the attacks of respiratory distress. The inhalations were given as an *apéritif* a few minutes before feeding time in the early days and with every attack of dyspnea and cyanosis. It was most interesting and very satisfying to watch how the gas would stir up these torpid little babies and produce an energetic sucking from the Breck feeders. We used the gas mixture until the babies were three months old, and altogether depleted fourteen cylinders, each one of which contained eighty gallons.

The babies were kept in the incubators until they all reached the weight of six pounds. For the first two

(Continued on Page 26)

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(Continued from Page 23)

months they were removed once a day only, in order that they might be oiled. At the end of this time, the oil bath was changed to a soap and water one. When they were five pounds in weight the incubators were used as cots and the extra heating was stopped.

In the early fall (1934) each baby in turn developed very quickly a severe type of intestinal toxemia as shown by high temperature, rapid pulse, abdominal distention and diarrhea, and they gave me many anxious moments. (An investigation showed that the most probable source of this infection was the diapers, which were improperly sterilized.) The anemia, which was present before to some extent, became more marked and small doses of ferrous chlorid were given three times a day in their feedings. This iron mixture was kept up until they were one year old. At the same time preparations were carried out for possible blood transfusions. The babies' bloods were typed (found to be all Jansky No. 1 and prospective donors were found. Hospitals offer a much greater freedom in the matter of transfusions than do country homes, and this home, with its many local and racial prejudices, was no exception to this statement. Fortunately, it was not necessary to carry out this procedure.

The opening of the hospital on September 22, 1934, marked one of the most important events in the history of the babies. It gave me the first opportunity for unrestricted medical control (with its various ramifications in this case) in the care of the babies.

Everyone realizes, I am sure, the difficulties that any family would have in adjusting themselves to a situation that the birth and survival of quintuplets produced. The Dionne house was a representative home of the backwoods, and, of course, offered the usual limited facilities of that country. The routine of family life was shattered by the various duties carried out by the three nurses, orderly, and cook, which were necessary for the welfare of the babies. It was quite natural, therefore, that the family should find the whole situation very bewildering. Furthermore, we found that proper isolation measures were impossible to carry out in the home, and black flies, mosquitoes and other insect visitors evaded our vigilance. Proper food and rest for the nurses, and protection from the curious public were among our other problems. All of these troubles ended, however, when the babies were transferred to their new residence, which is situated about one hundred yards across the road from their house of birth. It contains a large, bright, well-equipped nursery, four bedrooms, a bathroom, dining-room, and kitchen. This hospital is supplied with electricity and contains all the conveniences and equipment which is necessary to maintain a modern infants' home. The personnel of the staff remained the same. During the summer just past, a considerable number of changes in the building have been

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made. An isolation ward, an extra bathroom, and a sunroom have been added, and we feel that these additions will increase the efficiency of our care for the children.

After the babies arrived at the hospital they were introduced for the first time in their lives to the northern sun and the invigorating outdoor air. Commencing gradually, they soon began to spend hours under warm wrappings on the veranda, in the fresh air, and this was continued throughout the winter months. They immediately began to show a definite improvement; their faces filled out, their eyes sparkled, their legs became straight and plump, their "tummies" developed good proportions, and these happy little souls soon took on the rotund appearance of little puppies. Their normal development has been continuous ever since, and I know of no greater treat in the world than the one I receive when I enter the quintuplets' nursery every morning and see such a rare collection of smiling healthy babies.

In the country where I live, physicians have a very limited chance to follow carefully the early care of infants. The grandmothers, mothers, and midwives carry on with those duties shortly after the babies are born. We are usually only called for serious illnesses. The complete control of the care and feeding of the quintuplets gave to me the greatest pleasure of my life. I have no illusions about any special knowledge that I possess in the practice of pediatrics, and therefore I have tried to take advantage, to the best of my ability, of the good results obtained in our research centers. I feel, however, that I have learned a great deal in the last year and a half regarding infant care. My education has been further augmented through the medium of an international correspondence course in medicine, pediatrics, bacteriology, and therapeutics! My preceptors in this course have been varied, and included Christian Science followers, astrologers, chiropractors, veterinary surgeons, nurses, fathers, mothers, and maiden ladies. Many superstitious beliefs and ancient ideas regarding medicine and disease were passed along to me for my help. Letters containing advice

(Continued on Next Page)

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★ *Laryngoscope 1935 XLV, 149-154*
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245
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(Continued from Preceding Page)

and offers of help were received from Great Britain, India, Germany, France, Central America, Mexico, Australia, Philippine Islands, and from all over North America. I am quite sure that every milk preparation either "in" or "off" the market was mentioned in some of the letters. Goats and prize cows were offered to provide the necessary milk for the babies, and wet nurses made application for dairy appointments. It was suggested that a healthy lactating Yorkshire sow would solve our feeding problems. Her milk could either be obtained by pumping, or else preparing a place in the house whereby the babies could be directly suckled. It was intimated that the sow could be trained to adapt herself to this maternal duty. The reported onset of intestinal toxemia produced an avalanche of letters, all of which contained suggested measures of treatment. Watermelon juice, infusions of blackberry root, horsetail plant, sassafras, and knot weed were said to have produced spectacular results in similar cases. Whiskey was a common ingredient of many suggested remedies, and was to be used both internally and externally. The use of spirits, however, produced several letters of criticism for starting the children at such a tender age on a downward path. Sheep's dung tea, sweetened and warmed, was offered as a cure for "the blue spells." Placental blood in warm water was another secret imparted to me, for use in saving the babies. Of course, the usual letters containing messages from the stars, dreams of kidnapping, and warnings against poisoned food, were plentiful. A beauty specialist, in her own words, "a rather noted one," advised the use of her marvellous cream to remove the wrinkles from the premature babies. The contents of the morning mail offered great possibilities, and the following are two examples from among the interesting communications received:

Dear Sir:—I notice by the evening paper that you are waiting on a lady who is mother of 5 girl babies. You sure have your hands full—What carries away babies is Diareh or summer complaint or looseness of the bowels—Now the best cure I know is perfectly harmless.

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(Signed) ....

Dear Dr.:—Will you please send me any information on the Quintuplets of Mr. and Mrs. Dionne, of the past till the future time and any for the future, if it is not inconvenient to do so.

The Blank High School has requested for me to do this please. Yours truly,

Feedings.—During the first day, the babies were fed on warm water with an eye dropper every two hours. It was only possible to get them to take about ten to fifteen drops at one time. On the second and third days they were given thirty to sixty drops of a mixture containing seven ounces of milk, thirteen ounces of water, and one ounce of corn syrup. The milk and water was brought to a boil and the corn syrup gradually stirred into the mixture. A few drops of rum were added to all the feedings for the first week. On the fourth day we were receiving enough mother's milk from The Hospital for Sick Children, Toronto, to meet all the necessary requirements. The amount of breast milk was gradually increased from a dram per feeding upward, but the babies were three weeks old before they were able to take one ounce per feeding. The breast milk was used from the first at full strength, and it remained as the entire source of milk supply until the babies were nearly four months old. The daily supply of milk increased from thirty ounces per day in the first two weeks to nearly a gallon by the end of the fifth month. We managed to keep a small reserve supply in the refrigerator for emergencies.

A Breck feeder was substituted for the eye dropper on the sixth day, and at two months of age the babies were all taking their food from an ordinary feeding bottle. The feeding intervals were gradually increased, but with frequent setbacks, until at ten months the babies were fed four times a day.

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The breast milk was changed on October 19 to a mixture of cow's milk, water and Dextri-Maltose. We only used the cow's milk for a few days because we could not depend upon it, and an evaporated milk was substituted for it. This formula, with the addition of lacto-bacillus acidophilus, was used until the infants were one year old. The *B. acidophilus* appeared to keep the bowel movements more regular and the stools normal in odor. From one-half to one ounce of tomato juice or orange juice was administered daily as an anti-scorbutic to each baby, starting on July 9. Later the orange juice was increased to three to four ounces per baby and used thus for its cathartic value as well as for its vitamin C content.

On July 28, when the infants were two months of age, vitamin D was given daily, first in the form of viosterol and then of cod-liver oil. At the end of ten months each of the babies was receiving two drams of cod-liver oil

(Continued on Next Page)

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(Continued from Preceding Page)

per day. Prune juice was given from October 12. The first solid food was used on October 26 in the form of "Pablum," a precooked base-forming cereal, and this was given daily from this date. Assorted vegetables, cooked and strained, were added on January 5, followed by egg yolk on January 12, and on January 19 by cooked fruit pulp (apples, apricots, prunes).

Weight Record.—On May 29 (second day of life) the combined weight of the babies was 13 pounds 6 ounces, but on June 4 the total weight of the five was less than ten pounds, and Marie weighed only one and one-half pounds. The weekly weight charts for the first ten months present a very steady upward trend, with the two smaller babies showing a somewhat slower rate of gain. After ten months the weights continued to increase, so that at one year each had gained about one pound over her weight at ten months.

Infection.—Every care has been taken to prevent exposure of these babies to infection. Almost the only people in direct contact with the babies have been the parents, the nurses, and myself. Gowns and masks are used by all the attendants. In spite of these precautions, each of the babies during the month of March, 1935, developed an upper respiratory-tract infection which extended to the ears. It was necessary to perform paracentesis on both the ear drums of little Marie. They all recovered, somewhat slowly, without further complications.

The hemangioma on Marie's thigh required, during the year, three doses of radium emanations before it was completely obliterated.

The many incidents associated with the birth, the survival, and the growth of the Dionne quintuplets rivals, to my mind, even the imaginative fantasies of Scheherazade, as told in some of her life-saving stories in "The Thousand and One Nights." In looking backward at the end of the first year of these babies' lives, I feel that their history portrays a modern fairy tale with a medical flavor. This medical fairy tale, however, differs from the make-believe ones, because it is a true story of five babies who were actually born in rags, but who have even in their short lives achieved riches.

I wish to express my appreciation for the very real help and constant advice in the care of these babies from my brother, Dr. William A. Dafoe of the Department of Obstetrics and Gynecology, University of Toronto. Without his assistance it would have been impossible for me to keep the necessary records and to prepare the charts and manuscript which comprise this report.

Can you account him wise or discreet that would willingly have his health and yet will do nothing that should procure or continue it?—Robert Burton.

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EDITOR . . . . GEORGE H. KRESS

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this journal.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

CORONADO ANNUAL SESSION: PRE-CONVENTION BULLETIN CONTAINS REPORTS OF OFFICERS AND COMMITTEES

Complete Annual Session Program Was Printed in the April Issue.—As readers of California and Western Medicine will recall, there was printed in the April issue (pages 301 to 329 inclusive) the complete program of the sixty-fifth annual session, to be held at Hotel Del Coronado in San Diego, commencing on Monday, May 25, and continuing through Thursday, May 28; and a careful perusal of it for the many scientific and other Association activities should lead every member of the California Medical Association, who possibly can arrange his work, to make an effort to attend the interesting and important meetings scheduled for each day throughout the session. If, however, through inadvertence or other cause, members may not have noted the program in last month's issue, they are even now urged to refer to it. To read at least the synopses of the papers in which one has a special interest, will prove well worth the time, and especially so for the physician prevented from actual attendance.

* * *

"Pre-Convention Bulletin," with Reports of Officers and All Committees, Is Printed in This Issue.—In this month's issue, on page 407, is printed the "Pre-Convention Bulletin," which appears only in California and Western Medicine; wherefore, members of the House of Delegates, in particular, should take along to Coronado for reference purposes, this May number. The "Pre-Convention Bulletin" contains the reports of the general officers, the councilors, the standing committees and the special committees; and these reports summarize the activities of the Association for the last twelve months. They not only discuss old but new problems, and outline also information concerning the fiscal affairs, the detailed sheets of which are always open to inspection at the central office of the Association in San Francisco.

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† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column, which follows.

On Criticisms Made from Time to Time, on How the Association's Business Is Conducted.—From time to time, one hears the criticism so often made not only in our own but in many other organizations, that only the members who hold office seem to know what is going on. In reply, it can be pointed out that, if such be the case, then it may be due to the fact that those members who are elected to office make it their special business to read the minutes and reports of committees, so that they may more fully be able to understand, and so better solve the problems facing the Association. None would more truly welcome the wholehearted interest and coöperation of all members in the work of the State Association than its officers who are constantly alert in trying to acquaint themselves with the opinions of their fellow members who have elected them to the positions they hold.

* * *

Council Business Is Not "Slated."—Let no member, then, of the California Medical Association think for a moment that, because the minutes chronicle only brief statements on each item, the business matters which have a place on a Council docket are slated beforehand for this, that or the other action, or that decisions are arrived at without discussion, or that, at times, radical differences of opinion are not given expression. If the votes as recorded so often state that no opposing ballots were cast, that means only that in the discussions which took place between the councilors, whatever differences of opinion may have existed were ironed out, and that when the vote was called for, all had come to a unanimous opinion on the course of action to be approved. This is, after all, what one would expect from colleagues of long experience in organization work having broad, personal knowledge of the Association's problems and needs.

* * *

Criticisms and Suggestions Are in Order and Are Welcomed.—As has been stated by officers and councilors at the visitation conferences with component county societies, points of view and criticisms on policies and the proceedings are, and at all times, most cordially invited. In the last analysis, the California Medical Association stands as an exponent of scientific medicine, for the good reason that scientific medicine promotes the health, and thus, indirectly, the material and other welfare of the citizens of California; and as such an exponent and sponsor—as in all other professional and vocational guilds and groups—its members have learned that through organization and united effort, the individual and collective aspirations of the members of the medical profession are far more apt to be realized.

* * *

The Organized, Scientific Medical Profession Is Responsible in Large Part for Low Morbidity and Mortality Rates: Thus Promoting the Material Prosperity of the Nation.—And let it not be forgotten, no matter who may say and what to the contrary, that if, in the United States, there were not in existence a strong national medical organization with equally efficient constituent state associations, and up and doing component county medical societies, the standards of practice of the healing art, in so far as they relate to non-sectarian physicians and surgeons, would long before now, in more ways than one, have fallen to a low level.

For, believe it or not, the public health standards of the United States, with their lower morbidity and mortality rates, as compared with those of European countries (in spite of the presumable benefits of compulsory health insurance in these lands) are, and have been due in no small part to the influence and work—professional and, at times, altruistic-professional—which the members of the medical profession, in every part of the Union, and down to its almost smallest part, have generously given to the betterment of the physical, and so, indirectly, to the material and other welfare of lay fellow citizens. Ours is a noble guild, in which every member, legally accredited, may find opportunities without end to be of real and ofttimes vital service to those who come to him in hours of need.

* * *

In Union There Is Strength.—May we not, then, one and all remember that if we can be of service individually, we can also, each of us, be of greater service if we act collectively. Wherefore the need of such organizations as the California Medical Association and its component county medical societies, and why every physician who honors his calling should give whole-hearted support to organized medicine.

APPELLATE COURT DECISION IN KERN COUNTY HOSPITAL CASE LAYS FOUNDATION FOR A PROPOSED INITIATIVE LAW TO OPEN COUNTY HOSPITALS

Full Opinion of Appellate Court Was Printed in March Issue.—When, on page 189 of the March issue, this journal printed in full the opinion of the Appellate Court of the Fourth California District, editorial comment upon the decision was made on page 146, and later, on page 253 of the April number. The California Supreme Court decided against the appeal from the Appellate Court's decision, thus emphasizing the force of the provisions of the state constitution which govern the expenditure of public moneys.

As was stated in the comments above referred to, some of the language used in the Appellate Court decision, in so far as it referred to conditions under which certain classes of non-indigent patients could be admitted to county hospitals, might, in the opinion of many physicians, have been clarified still more. On the whole, however, the court's opinion was in line with the points of view held by most licensed practitioners of medicine and surgery practicing in California; although it certainly was far from acceptable to the Board of Supervisors of Kern County and of the other counties who supported them through *amici curiae*, in the appeal that was taken to the Supreme Court.

Kern County Supervisors and Their Supporters Propose a Constitutional Amendment: To Open County Hospitals to Both Indigent and Non-Indigent Citizens.—Witness in this connection, the following excerpts from *The Bakersfield Californian* of April 4, 1936:

> PETITIONS DEMAND VOTE ON KERN AND STATE HOSPITAL ISSUE
>
> *Hospitalization on Pay Basis Is Urged By Group*
>
> Petitions asking that a proposed change in the Constitution of California, which would allow county hospitals to accept non-indigent patients, be submitted to the voters are being circulated throughout California by members of various civic, labor and farm organizations, it was learned today. The petitions have their origin in Kern County, where the Kern General Hospital Protective League has led the state-wide fight for public hospitalization in county hospitals.
>
> MANY IN FAVOR
>
> Thousands of signatures already have been affixed to the petitions, attesting the favor with which the proposed initiative measure is viewed by the electors, according to proponents of the move.
>
> The Attorney-General has summarized the proposed measure as follows:
>
> Establishment and maintenance of hospitals for pay patients by political subdivision. Initiative constitutional amendment. Authorizes the governing body of any city, county, or city and county, to establish and maintain a hospital for the care and treatment of any resident thereof whether an indigent or non-indigent, and to enact rules prescribing the rates to be charged each resident, other than indigents, for hospital services and supplies.
>
> THEME OF PETITIONS
>
> The petitions are addressed to the Secretary of State of the State of California, and read:
>
> We, the undersigned, registered qualified electors of the State of California, residents of Kern County, present to the Secretary of State this petition and hereby propose an amendment to the Constitution of the State of California by adding Section 21 to Article XI thereof, to read as hereinafter set forth in full, and petition that the same be submitted to the electors of the State of California for their adoption or rejection at the next succeeding general election or as provided by law.
>
> The petitions then continue and set forth in technical terms the proposed section as interpreted above by the Attorney-General.

* * *

The Proposed Law Would Be an Amendment to the Constitution of the State of California.—If the proposed constitutional amendment, title printed above, is to have a place on the November, 1936, ballot, a total of 186,000 validated names of voters must be attached to its initial petition, and these are required to be in the hands of the Secretary of State at least 110 days before the November, 1936, election. Under existing economic conditions and with the present temper of many voters, it is quite possible that the number of signatures needed may be secured. If so, the members of the medical profession will have before them, in the months up to the November election, a real and serious task. Of that, however, more later on, in case the initiative petition actually finds a place on the November ballot.

* * *

Component County Societies and Legislative Candidates.—In the meantime, it is to be hoped that component county societies will be fully alert to their responsibilities prior to, and in the near-at-hand primary elections, and that members throughout the State will give consideration and support only to those legislative candidates, for either Senate or Assembly, who are known to have sound opinions on public health matters. Physicians are citizens and taxpayers. They owe it to themselves, in virtue of their special qualifications and calling, to inform their lay fellows, in proper, diplomatic fashion, concerning the importance of electing only those senatorial and assembly candidates whose past records indicate that they will support sane and legitimate public health measures. This is our immediate duty. And it should be remembered that in California, even though the large cities have a preponderance of power in the lower house or Assembly, the smaller and rural counties are in position to exercise as great or even greater legislative influence, because of their larger proportion of state senators.

* * *

Component County Societies Have an Immediate Duty Facing Them.—The members of every component county society, and the officers especially, thus have in all this matter a serious and important obligation. Now is the time, therefore, to delegate to standing or special committees the work of contacting legislative candidates so that the information so gained may be given, not only to fellow physicians, but to patients and to those other citizens who likewise have the welfare of the State and its many economic, social welfare and public health activities truly at heart.

MEDICAL HISTORY THAT IS NOT HISTORY: COMMENT ON A LAY JOURNAL'S MISSTATEMENT OF CALIFORNIA MEDICAL ASSOCIATION ACTIVITIES

April 20 Issue of "Time" Discourses, Not Learnedly but Otherwise, on Medicine.—The weekly magazine *Time,* in the "Medicine" department of its issue for April 20, 1936, has as an opening article, "Pre-Convention [A. M. A.] Problems," in which the California Medical Association and the names of several of its members are mentioned. Every sentence of the third and fourth paragraphs may be pronounced a glaring misstatement of fact—whether made through ignorance, or by intention, we do not know.

* * *

The First and Second Paragraphs.—The opening paragraph is as follows:

> The American Medical Association will meet in Kansas City next month. Some seven thousand United States doctors will attend that annual convention. But only 172 members, delegates for the 101,754 American Medical Association members, will have anything authoritative to say, and that only between the authoritative gavel bangings of the Speaker of the House of Delegates, 70-year-old Dr. Nathan Bristol Van Etten of the Bronx.

The second paragraph, referring to the annual reports in a recent issue of the *Journal of the American Medical Association,* quotes some of Secretary Olin West's reports on certain American Medical Association work.

The Misstatements of the Third and Fourth Paragraphs.—The declarations made in the third and fourth paragraphs are so widely and so surprisingly at variance with actual facts that they are considered below, sentence by sentence, our comments following:

* * *

> Long-time predecessor of Dr. Van Etten as Speaker of the American Medical Association House of Delegates was Dr. Frederick Cook Warnshuis. Disaffection among American Medical Association delegates and officers plus his own ill health cost Doctor Warnshuis his job. When he took the secretaryship of the California Medical Association, American Medical Association headquarters in Chicago expected him to control that State's alarming tendency toward socialized medicine.

To every member and fellow of the American Medical Association who is at all familiar with the national organization, and its constituent state medical associations, this statement that American Medical Association headquarters in Chicago "expected Doctor Warnshuis to control the California Medical Association's alarming tendency toward socialized medicine," sounds for what it is, namely, a gross absurdity. The officers of the American Medical Association at Chicago and elsewhere would not be holding their positions in the American Medical Association, if they believed that it was possible for any one man to control a state medical association's policies, particularly, as in this instance, California, with its 5,397 members, making it the fourth largest state medical society in the United States. The secretary of the California Medical Association, Doctor Warnshuis, certainly holds no such silly notion, nor do the members of the Council who elected him; and our personal acquaintance with most of the officers of the American Medical Association at Chicago, extending over many years, permits us to affirm that those colleagues likewise hold no such ridiculous thought.

* * *

> But Doctor Warnshuis was unable to prevail against Dr. Walter Bernard Coffey, pugnacious chief surgeon of the Southern Pacific Railroad, who bosses the politicians who control the practice of medicine in California.

We cannot conceive from what source the medical editor of *Time* picked up the preposterous idea quoted above. In the first place, the practice of medicine in California is governed by the State's Medical Practice Act. Each of the members of the California Medical Association avails himself of his right to practice medicine, as in his own judgment seems best, in conformity with the state's legal enactments. Secondly, Dr. Walter B. Coffey of San Francisco is not at the present time, nor for almost ten years has he been, an officer of the California Medical Association. It may be added that throughout the State, there are a rather large number of California Medical Association members, who in recent years have taken a greater and much more active part than his, in the consideration and determination of the present policies of the California Medical Association; which policies, by the way, are laid down, not by him or any other man, but by the House of Delegates (one delegate for every fifty members in a component county society of the California Medical Association), and by its Council of nine district councilors (three elected each year, for three-year terms), and six councilors-at-large (two elected each year for three-year terms), and seven general officers (elected each year). Most of the delegates and practically every one of these councilors have had years of organization experience behind them.

What an irrational statement, then, even to suggest that Doctor Coffey directly or indirectly controls, through the delegates and councilors, or through any other persons, the practice of medicine in California! If the proprieties of the printed word permitted, it might be possible to give expression to one's opinion of such unreasonable prattle, and of the person who would have the temerity so to chatter.

* * *

> Results: The California Medical Association last year practically bolted from the American Medical Association.

The California Medical Association was represented at last year's session in Atlantic City by seven delegates, to whom, individually and collectively, such a conception as given above never occurred. The California Medical Association delegates were interested and active participants in the proceedings of the House of Delegates up to the very moment of its adjournment. To talk, therefore, about California as "practically bolting," is ludicrous, and then some.

* * *

> The American Medical Association refused to elect a California doctor as trustee.

Two trustees were elected last year, one from Oregon and one from West Virginia, so that the Association's choice could be twisted to reflect upon all the other states in the union. It is certainly the right of the American Medical Association House of Delegates to decide from what states the trustee members of the national organization shall come, and who they shall be, so that the inuendo probably intended, is decidedly out of place.

* * *

> Eleven thousand California doctors have virtually no say concerning the practice of their profession.

"Inaccurate and incongruous" must be the verdict of California physicians on reading such palpable nonsense. The Board of Medical Examiners of the State of California carries on its roster the names of 10,490 licensed physicians, of whom 5,397 are members of the California Medical Association. Of the nonmembers, several thousand are elderly physicians who have come to California to spend their remaining years, and who are so little in active practice that they may be said to be virtually on the retired list. California membership studies made in recent years reveal the fact that only about 1,200 of the nonmembers would be eligible for admission to the Association, and that with many of these, financial and other good reasons account for their nonaffiliation. However, both members and nonmembers of the California Medical Association have very much to say about the practice of their profession, and they carry on their work, both individually and collectively, as they see fit, without let or hindrance, except as they violate the provisions of the medical practice act of the State, or commit gross breaches of ethical conduct; in which latter instance they lay themselves liable to citation before the constituted authorities of their fellows, to explain why they choose to jeopardize the scientific and ethical standards of their guild, and its capacity to adequately serve the people.

* * *

> During the past year these changes affecting the California carbuncle on the body of the American Medical Association have occurred: The American Medical Association has become more lenient toward California experiments in the relation of doctor to patient; California doctors were scared away from drastic changes in ethics by Upton Sinclair's EPIC. Doctor Coffey hopes that by "playing ball" with the American Medical Association that organization will fulfill his dearest wish and agree that he has cured many a case of cancer with hypodermic injections of extracts of adrenal cortex.

"California carbuncle" must be put down as strained effort of cheap and inapt smartness, to which a number of *"Time's* editors, ablest historians of our day" (if one may refer to the radio laudations of their merits), seem obsessively addicted.

We believe that the California Medical Association, one of the largest and best organized constituent state associations of the American Medical Association, far from being a carbuncle on the body of the national organization, is a state unit of which the American Medical Association is and has just right to be proud.

The "leniency of the American Medical Association toward California experiments in the relation of doctor to patient" is a nonsensical statement, because the national organization is too busy with its own important work to meddle with a state unit's studies of the attitude of physicians to their patients.

When the "able historian" who conducts the "Medicine" department of *Time* has the presumption to print, "California doctors were scared away from drastic changes in ethics by Upton Sinclair's EPIC," his superficial and senseless twaddle are more obvious than ever.

Why Doctor Coffey should be dragged in by *Time*, as in the concluding sentence of the last quotation, is beyond our ken, and to every member of the California Medical Association who knows aught about its organization work, or that of the American Medical Association, the reference must sound like mere moonshine and balderdash.

* * *

Question Arises of Diagnosis of the Mental Condition of the Magazine's "Medical Editor."—Within a day or two after the issue of *Time* for April 20 reached California, several colleagues called our attention to the article quoted, on which these comments are now made. If *Time* were a publication of lesser circulation, it would be questionable whether any statement, in relation to the California Medical Association and several of its members, would be deserving of the space here given. When one remembers, however, the emphasis which radio announcers place on the so-termed accuracy of *"Time's* editors, the ablest historians of our day," then the declarations seemingly made in great earnestness by that magazine's contributor or editor on matters medical, must amuse California and other physicians—who actually know a good deal about the matters discussed—as being little less than farcical and laughable. We would observe also that, if we felt the statements made in other departments of that publication were as far from the truth as are those to which our remarks are directed, we should promptly cancel our own subscription, and quite as quickly cut off the broadcasted "March of Time" if, by chance, the radio brought it to our ears.

However, *Time's* "medical editor," when "up against it" for copy, may have been indisposed through illness—or, who knows, for some other cause—or may even have been absent from his desk, making it necessary for friend or office boy to "pinch-hit" and help him out; for any one of which or similar reasons, he might possibly be excused. Nevertheless, if in future the articles on "Medicine" in *Time* are such babblings as those excerpted, then we shall religiously avoid perusing the stuff, although presuming that the magazine hires the "medical editor" to portray the medical history of the day, and in far better form than that to which expression is given in the periodical's issue of April 20.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 407.

EDITORIAL COMMENT[†]

ARTIFICIAL FEVER AS A THERAPEUTIC PROCEDURE

The use of artificially produced fever has become an established therapeutic procedure for the treatment of certain diseases. There is a constantly growing list of conditions for which pyrotherapy has proved beneficial. It is of particular value in the treatment of syphilis of the central nervous system, especially paresis, tabo paresis, and tabes dorsalis. In other forms of neurosyphilis which fail to respond to drug therapy, artificial fever is a valuable adjunct. Fever therapy is indicated in gonorrheal arthritis, epididymitis, and resistant urethral and prostatic infections. The effects upon gonorrheal arthritis are striking, the pain and swelling responding promptly. In other types of arthritis, in multiple sclerosis and leprosy, irregular results have been noted with fever therapy. The field of pyrotherapy is gradually extending, and its exact place in therapeutics should be determined by careful trial in various conditions.

[†] This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

Interest in artificial fever therapy was stimulated by the brilliant results obtained by Von Juaregg in 1918 in the treatment of general paresis with artificially induced malaria. Many other methods of producing an artificial fever have been introduced since that time, including inoculation with the parasites of relapsing fever and rat-bite fever, injections of vaccines and foreign proteins; injections of sulphur in oil, diathermy and radiothermy; electric blankets and heat cabinets; hot baths and the blanket method. As comparable therapeutic results can be obtained with any method which produces an adequate fever, it is generally agreed that the fever is the essential factor in the procedure rather than the way in which it is produced.

The exact manner in which artificial fever exerts a favorable influence is not known. In syphilis there is a direct effect upon the Treponema pallidum. Other factors which are not wholly understood may also play a part.

Hyperpyrexia can be produced by preventing radiation of body heat through simply wrapping the patient in blankets and adding heat from an external source. The body temperature rises to the desired height of 40 degrees centigrade (104 degrees Fahrenheit) within two hours. It can be maintained in this way as long as desired. This method has been described in a recent issue of the *Journal of the American Medical Association*.[1] In the treatment of syphilis of the central nervous system, five hours of fever of 40 degrees centigrade (104 degrees Fahrenheit) is regarded as one treatment. This is repeated weekly for ten weeks, a course of fever consisting in fifty hours of temperature at 40 degrees centigrade (104 degrees Fahrenheit).

While artificial fever can be produced easily in this way, it must be fully realized that fever therapy has certain dangers. The patient selected for the treatment should be in good physical condition. Any serious physical defect is a contraindication to fever therapy, such as advanced age, debility from any cause, hypertension, cardiac disease, tuberculosis, obesity, etc. The candidate for artificial fever should be physically able to stand a major abdominal operation.

Artificial fever therapy should be given only by nurses and physicians trained in this work, and only in properly equipped hospitals. This treatment is a hospital procedure, requiring twenty-four hours' hospitalization. With careful selection of patients, and under conditions as suggested above, artificial fever, for therapeutic purposes, can be induced with safety.

450 Sutter Street.

NORMAN N. EPSTEIN,
San Francisco.

PULMONARY TUBERCULOSIS: THE NEED OF EDUCATION FOR THE GENERAL PRACTITIONER IN ITS DIAGNOSIS AND TREATMENT

That the general practitioner needs further training in the diagnosis of pulmonary tuberculosis is very apparent to those working in a general tuberculosis hospital. We see here the incorrect diagnosis of patients referred either to the hospital wards directly or to the chest clinic. At the San Francisco Hospital on the University of California tuberculosis service during the month of October, 1935, fifteen new patients were sent in to the chest clinic diagnosed by their private physicians as having pulmonary tuberculosis. Of these patients, only five actually had pulmonary tuberculosis. In other words, ten patients (60 2/3 per cent) were incorrectly diagnosed.

Too frequently the following happens: The patient comes to us with a history of long-standing cough and sputum. After making the diagnosis of advanced pulmonary tuberculosis, comes the natural inquiry, had he never before consulted a physician? Oh, yes, he had consulted several physicians, who had diagnosed bronchitis and who had given him various prescriptions for his cough. Indeed, there are many patients who state that no examination of the chest was made at all. In some of these "bronchitis" cases, not until the patient has hemoptysis does the physician suspect tuberculosis. Even with hemoptysis as the onset of the disease, many patients, in the absence of physical signs in the chest, are told to go home and "forget it"; that the hemorrhage was due to the "rupture of a delicate vein in the throat." We sometimes see patients with a gastro-intestinal onset treated as "dyspeptics," or the fatigue and nervousness of the tuberculous patient are regarded as symptoms of neurasthenia. Vomiting after cough, a symptom emphasized as almost pathognomonic of a lung lesion to the third-year medical student, is treated as "gastritis." The underlying disease is overlooked.

Hazardous as is the failure to diagnose tuberculosis, equally hazardous is the tendency to diagnose every suspect as active tuberculosis. Almost daily we find patients with pulmonary symptoms or unexplained loss of weight, due to other diseases, branded as tuberculous. Often physicians, because of a suspicious symptom, have sent patients to warm climates or other meccas for the tuberculous; families have been broken up and patients have lost their positions unnecessarily. How often, after having spent months in sanatoria, have patients been found to be nontuberculous! But too much blame should not go to the general practitioner. Consider the large proportion of the nontuberculous patients who are admitted and kept in sanatoria, as well as the large number of patients who are "cured" after only two or three months in these institutions. This applies especially to the patients with negative or no sputum. The general practitioner can point out that the specialist himself is not infallible.

But even in the correctly diagnosed cases, results are sometimes tragic. No effort is made to isolate the patient or to examine the contacts. Because the latter look healthy they are ignored; disastrous consequences result from failure to trace the source of the infection. A coughing grandmother may be responsible, but because of the widespread impression that old people have an immunity to tuberculosis, the source is overlooked. Even if the diagnosed patient is isolated, the danger to the other members of the family still exists. The responsibility of examining the entire household rests with the attending physician. We have often found that innumerable patients have been diagnosed as tuberculous for years, but that the physicians had neglected to report them to the local department of public health, and that the contacts had never been examined.

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[1] Epstein, N. N., and Cohen, M.: The Effects of Hyperpyrexia Produced by Radiant Heat in Early Syphilis, J. A. M. A., 104:883 (March 16), 1935.

Space prevents further discussion of mistakes in treatment. Osler epitomized the importance of diagnosis and treatment in these memorable words: "The ordinary physician treats the patient with medicine and without rest—rest, fresh air, and proper diet, the three things which will arrest a large number of cases of pulmonary tuberculosis *if*, and the if is *you*, gentlemen, the diagnosis is made early."

San Francisco Hospital.

E. ROSENCRANTZ,
San Francisco.

REGULATION OF THE BLOOD SUGAR

The prevailing conception of the regulation of blood sugar, as exemplified by the events taking place after a meal or a dextrose tolerance test, may be summarized as follows:

1. The absorption of carbohydrates stimulates the pancreas to an increased output of insulin.
2. The increase in insulin causes greater storage and oxidation of sugar.
3. Excessive postprandial hyperglycemia in diabetes mellitus is due to failure of the pancreas to secrete increased amounts of insulin in response to absorbed carbohydrates.
4. The "diabetic" type of curve obtained after a dextrose tolerance test in starvation is due to lack of the proper response from the pancreas, which needs frequent stimulation in order to respond normally. Conversely, repeated or prolonged administration of dextrose results in greater tolerance for sugar due to increased mobilization of insulin in response to the previously administered sugar.

In 1932 Althausen and Thoenes,[1] in studying the influence of hepatic toxins on carbohydrate metabolism, found that increasing injury to the liver caused progressive impairment in dextrose tolerance. On the other hand, hyperactivity of the liver during periods of recovery with active regeneration of hepatic parenchyma, was observed to produce greater than normal tolerance to dextrose. These experiments showed that in the presence of an intact pancreas the liver is the organ which determines the shape of the dextrose tolerance curve.

These findings were confirmed and extended by a group of Chicago workers under the leadership of Soskin, who showed that the pancreas is not essential to the metabolic reactions which determine the normal dextrose tolerance curve. Soskin et al.[2,3,4] obtained normal dextrose tolerance curves (including adjustment to prolonged administrations of dextrose) in pancreatectomized dogs, in which a constant injection of insulin was substituted for the pancreas. In this way, the animals received an adequate supply of insulin to maintain a constant blood sugar, but were unable to mobilize additional insulin when sugar was given. If increased secretion of insulin were essential for a normal dextrose tolerance curve, these animals should have had abnormal curves, which was not the case. In another set of experiments, the same workers found normal dextrose tolerance curves in depancreatized and hypophysectomized dogs which had received no insulin for weeks.

These researches led Soskin to a new theory of blood-sugar regulation, in which the emphasis is shifted from the pancreas to the liver. According to this theory, the liver, in response to administered dextrose, decreases its output of sugar into the blood. However, the liver can respond properly to administration of sugar only under the influence of a suitable endocrine balance which, for simplicity, may be considered to consist of the opposing influences of the hormones of the pancreas and of the hypophysis. When this endocrine balance is disturbed by insufficiency of insulin or excessive activity of the hypophysis, the liver is not stimulated to inhibit its release of sugar until the blood sugar may greatly exceed the normal level, and the clinical picture of diabetes mellitus is produced. One might add that the reverse is also true, namely, when the endocrine balance is disturbed by excess of insulin or insufficient activity of the hypophysis, the clinical picture of "hyperinsulinism" is the result.

In conclusion, it must be said that the experiments just discussed do not disprove an increase in the secretion of insulin under the stimulus of a rise in blood sugar, for which there is evidence from experiments with transplanted pancreatic tissue. Also, the new conception of the regulation of blood sugar has as yet no practical application in the treatment of diabetes mellitus, but it does furnish an adequate explanation for the failure of partial pancreatectomy to cure some cases of so-called "hyperinsulinism," in which no tumor of the pancreas is present.

University of California Hospital.

T. L. ALTHAUSEN,
San Francisco.

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[1] Althausen, T. L., and Thoenes, E.: Influence on Carbohydrate Metabolism of Experimentally Induced Hepatic Changes. I. Fasting and Administration of Thyroxin, Arch. Int. Med., 50:46, 1932. II. Phosphorus Poisoning, Ibid., 50:58. III. Chloroform Poisoning, Ibid., 50:257.

[2] Soskin, S., and Mirsky, I. A.: The Influence of Progressive Toxemic Liver Damage Upon the Dextrose Tolerance Curve, Am. J. Physiol., 112:649, 1935.

[3] Soskin, S., Allweiss, M. D., and Cohn, D. J.: Influence of the Pancreas and the Liver Upon the Dextrose Tolerance Curve, Am. J. Physiol., 109:155, 1934.

[4] Soskin, S., and Allweiss, M. D.: The Hypoglycemic Phase of the Dextrose Tolerance Curve, Am. J. Physiol., 110:4, 1934.

ORIGINAL ARTICLES

OPERATIVE RESULTS IN CATARACTS COINCIDENT WITH DINITROPHENOL THERAPY

By Hans Barkan, M.D.
W. E. Borley, M.D.
Max Fine, M.D.
and
Jerome Bettman, M.D.
San Francisco

Discussion *by M. N. Beigelman, M. D., Los Angeles; M. L. Tainter, M. D., San Francisco; W. D. Horner, M. D., San Francisco.*

In May, 1935, our attention was first drawn to the coincidence between the ingestion of dinitrophenol and the formation of cataracts. One of us had been told by Doctor Nutting of Oakland that he had seen a case he believed to have displayed such a coincidence. About a week later there appeared in the office an obese woman who had lost sixty pounds of weight over a period of eight months, after she had taken dinitrophenol, and who had recently lost the vision of both eyes. The following week another patient was seen with the same history and clinical findings. This patient was referred by Dr. W. D. Horner for consultation. Doctors Horner, Jones and Boardman[11] were the first in the literature to draw attention to the coincidence between the ingestion of dinitrophenol and the later formation of cataracts, with the warning that the medical profession might find cataracts to be a complication of the therapy. They advised that the administration of dinitrophenol be stopped until it was shown whether or not more cases of cataract in relation with the use of the drug developed. Meanwhile, Dr. Frank Rodin[1] has reported cases in and about the San Francisco Bay region to the number of thirty-six. Since this report we have seen two more such afflicted, and undoubtedly other cases have been noted by other physicians, so that the total number is still rising. This paper describes the clinical appearance of some of these patients and the results of operations on twenty eyes operated upon for cataracts in this group.

There are several common factors in all these operative cases. The patients are all women; they have all been obese; they have taken dinitrophenol; they have all lost weight; they are all of an age, but for one case in which development of cataract as a senile phenomenon, so-called, does not take place; they all saw well before the ingestion of dinitrophenol, and before their loss of weight; none of them, since operation, have shown a fundus condition which could have been responsible for cataract formation; only one had diabetes; none gave a history of early cataract formation in their immediate family; they all complained of loss of vision within six months to a year after having stopped dinitrophenol, and two of them of that loss while still taking it. The cataracts were bilateral, sometimes one more mature than its fellow, and in several cases they were equally mature; some women still saw enough with one eye to be not entirely helpless, others were brought in with only light projection and perception in either eye; while all, with one exception, had been fat but had lost considerable weight. The rapidity of cataract formation has been astonishing. One patient with a mature cataract on one eye, and still able to walk about comfortably with the other, lost her vision entirely on the unoperated eye while under hospital observation in bed following operation, and then had this second eye operated upon.

From the clinical point of view, then, these cataracts in this reported group are of a type that have not before occurred in our operative cataract material. The study of the tables is better than any lengthy description. The main points to be noted, however, are: that most of the extractions can be done by linear extraction and in most cases a round pupil can be obtained; and that we did not attempt any intracapsular extractions due to the fact that we did not know whether or not there might be complicating factors, such as vitreous degeneration, and that many of these lenses were so intumescent, and the capsule so thin, that an intracapsular extraction would have been difficult or impossible. It is further to be noted that in two cases vitreous loss occurred—in one, a marked amount of fluid vitreous, in the other a small bead only; that in many cases the chamber was extremely shallow—small hemorrhages, coming seemingly from the wound without rupture of the same occurred in several cases; and, further, that the vision was excellent in almost all cases and no deleterious effect on the eye other than the formation of these cataracts was observed in later careful examination. The cases in the tables are partly private, and partly those operated upon on the clinic service of Stanford University Medical School. While it is a great misfortune that even a small percentage of those taking dinitrophenol have been afflicted with cataracts, it is reassuring to know that operation is fairly easy and, in cases not otherwise complicated, promises excellent vision. What the processes are that tend to such rapid cataracts in some people losing weight due to the action of ninitrophenol we do not as yet know. One of us is at present engaged in collaboration with the department of pharmacology in an attempt at solving this problem.

This investigation brings up again the problems of cataract etiology in general. A review of the literature in regard to research in cataract etiology and normal lens metabolism leaves one in great doubt as to the probable mechanism of cataract formation in cases of this kind. A great deal of work has recently been done on the investigation of the vitamin C content of the aqueous and lens. Müller and Buschke[2] have shown that in naphthaline cataracts, on injecting ascorbic acid intravenously, there was a regression of the opacities. Strauss[3] was of the opinion that in naphthaline cataracts the vitamin C disappears from the aqueous because of the increased permeability of the capsule. Bellows[4] recently has found a decrease in cevitamic acid content of blood plasma in patients with senile cataracts, as compared with normal individuals. These cataractous subjects were also slower in responding to increased intake of vitamin C as shown by plasma determinations. Bellows concludes from these findings that the disappearance of vitamin C from the aqueous and lens in cataractous eyes precedes the lens changes, and is not secondary to them, as has been suggested. Fisher[5] has investigated the reducing substances, or auto-oxidation systems of the lens, and found that these are absent after formation of cataract. It may be that in cataracts associated with dinitrophenol there is some similar destruction of thes auto-oxidation systems. The work of Day, Langston, and Obrien,[6-10] on cataract formation in rats on vitamin G deficiency, brings up the problem of diet, and it has been thought that in this clinical group dietary insufficiency might play a part; but this seems unlikely, in view of the many cases of obesity under similar dietary restrictions without the administration of the drug. In view of the changes in the capsule, and immediately underneath the capsule, one might also think of a permeability change due to the dinitrophenol which might initiate a disturbance in the nutrition of the lens or an altered p_H toward the acid side with the resultant lens opacities. It is difficult to explain the delayed formation of these cataracts after the use of dinitrophenol; in some cases more than a year elapsing from the time the drug was stopped to the onset of symptoms. Water balance or dehydration have been blamed as a possible mechanism, but this cannot be of sufficient degree to cause lens changes such as are found in Asiatic cholera. It is true that the marked increase in hyperopia noted early in many of these cases is suggestive of decreased lens volume with resultant change in refractive index of lens; but this may be due not to a change in volume of lens as much as a change in refractive index of individual fibers. These refractive changes are interesting in that they are the opposite of those in diabetic and traumatic cataracts.

In conclusion, the table as presented shows twenty eyes operated upon; but in the last two weeks three more patients with bilateral cataracts have appeared, and four more eyes than are shown in the table have been operated, all without complications. The results shown in the table, and in the additional cases just mentioned, justify a good prognosis as regards reëstablishment of useful vision to those afflicted with cataract formation coincident with ingestion of dinitrophenol and loss of weight resulting therefrom.

Stanford University Medical School.

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DISCUSSION

M. N. Beigelman, M. D. (1930 Wilshire Boulevard, Los Angeles).—Although it was hardly more than a year ago that the coincidence of lenticular changes with dinitrophenol therapy became known, the "dinitrophenol cataract" today must be considered an established clinical entity. The general incidence of this complication, the appearance of the cataract, the rapidity of its development and other peculiarities in the course of the disease have been repeatedly investigated and reported. (See the article by Dr. Frank Rodin in the April issue of California and Western Medicine.)

The contribution of Dr. H. Barkan and of his collaborators deals with a less known but very important practical phase in the problem—the surgical treatment and the final results in this type of cataract.

It is fortunate indeed that the deleterious effect of dinitrophenol is limited to the crystalline lens without any other apparent intraocular change; this assures satisfactory visual results once the opaque lens is removed. The comparatively young age of these patients accounts for the favorable postoperative course: the rarity of postoperative inflammatory reactions and the speedy absorption of cortical material. Personally, I have resorted to the same extracapsular extraction that Doctor Barkan did. The lenticular intumescence which is responsible for a tautness of the capsule, in addition to the age of the patients, seemed to contraindicate the removal of the lens in toto. About the only difficulty encountered was an occasionally shallow anterior chamber; this made the use of a narrow Graefe knife preferable to a keratome section.

Doctor Barkan's experience, based on very large and carefully analyzed operative material, will be of decided value to anyone dealing with "dinitrophenol cataracts."

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M. L. Tainter, M. D. (Stanford University School of Medicine, San Francisco).—Since this paper primarily deals with the results of cataract operations, I do not feel qualified to comment on the technical procedures described. However, the question of the etiology of these cataracts, just like that of most other cataracts, is still an unsolved problem. The sole fact relating these to dinitrophenol is that they have occurred in a number of women who, at some previous time, have taken this drug. Yet for every woman who has taken dinitrophenol and developed a cataract there are hundreds, if not thousands, who have taken equally large amounts and have not developed them. The limitation of the cataracts to women requires an explanation, since, while the drug has been administered to both sexes, yet men are apparently immune to any such change in the lens. Moreover, this type of cataract is not confined to those who have taken this drug, for several cases with a clinical picture, indistinguishable from that herein described, have occurred recently in women who have not taken dinitrophenol or any other reducing remedy. Dr. Warren D. Horner has a paper in press at the present time describing such cases. All these facts indicate that some other factor or factors must be operating to produce the

TABLE 1.—*Summary of Operative Cases and Postoperative Results*

Name	Sex	Age	Dinitrophenol	Vision Impaired	Vision Before Operation	Examination	Operation	Complications	Vision P. O.
I. W. Right eye	F.	31	May, 1934, to October, 1934, and February, 1935, to March, 1935. Maximum dose 480 mgs.	November 1, 1935	15/30—November 26, 1935 H. M. January 7, 1936	Intumescent silvery cataract a. c. very shallow, brownish post subcapsular opacities with many flakes.	January 7, 1936. Linear extraction, round pupil, no iridectomy, small cortical remnant.	None	15/20 with +10.0 sph.
I. W. Left eye	F.	31	Same	Same	15/30—November 26, 1935 Fingers 2 ft. January 7, 1936 H. M. January 10, 1936	Same	January 10, 1936. Linear extraction, round pupil, no iridectomy.	None	15/20 with +10.0 sph.
H. E. Right eye	F.	33	October, 1934-October, 1935, gr. 1½ daily, also thyroid.	October, 1935	15/15—October 10, 1935 15/100—December 20, 1935 following ascorbic acid for three weeks.	Cloth of gold opacity, many white punctate opacities in cortex, a. c. shallow.	Linear extraction, round pupil, flake of debris in pupil.	None	15/20 with +10.0 +2.0 c ×180
H. E. Left eye	F.	33	Same	Same	1/200 October 10, 1935	Intumescent silvery cataract, a. c. shallow, ascorbic acid three weeks prior to operation.	November 20, 1935. Linear extraction, round black pupil.	None	15/15 +12.0=+1.0 c x 135°
H. L. Right eye	F.	27	March to April, 1935 Amount?	September, 1935	H. M. December 9, 1935	Opalescent, intumescent cataract with sector-like opacities in anterior cortex, yellowish post-subcapsular opacity.	December 11, 1935. Linear extraction, some of the almost fluid lens escaped with incision, remainder easily expressed. Peripheral iridectomy.	None	20/20 +13.0=+1.0 c x 180°
H. L. Left eye	F.	27	Same	Same	15/70 December 9, 1935 H. M. December 15, 1935	Web-like yellowish post-subcapsular opacity. Punctate white opacities through anterior cortex most numerous under capsule, a. c. normal depth.	December 18, 1935. Linear extraction, some of the lens escaped with incision, remainder easily expressed. Peripheral iridectomy.	None	20/20 +13.0=+1.5 c x 180°
K. P. Right eye	F.	55	April, 1934, to October, 1934. Maximum dose three capsules daily.	September 1, 1935. Reading vision failed September 21, 1935.	H. M. 1 foot	Intumescent opalescent cataract, a. c. very shallow.	October 12, 1935, performed flap incision with Bard-Parker, enlarged with scissors. As capsule was opened soft lens material gushed out, nucleus expressed with spoons. Peripheral iridectomy.	None	15/20 +10=+1.50 c x 180° add +3.0
K. P. Left eye	F.	55	April, 1934, to October, 1934. Maximum dose three capsules daily.	September 1, 1935. Reading vision failed September 21, 1935.	H. M. 1 foot	Intumescent opalescent cataract, a. c. very shallow.	October 16, 1935, entrance to eye as above, capsulotomy, nucleus expressed and cortical debris removed with Hess spoon. Peripheral iridectomy.	Slight vitreous loss	15/15 Same correction as above
V. M. Right eye	F.	55	November, 1933, to June, 1935. 165 mgs.	Autumn, 1934	H. M. 1 foot	Silvery white, satiny, soft appearing, swollen cataract with broad white spoke-like striations from periphery to center.	Extraction with Weber loop after incision and iridectomy November 1, 1935.	Retrobulbar hemorrhage	10/200 +10.0 +2.0 ×180°

(Continued on Next Page)

TABLE 1.—*Summary of Operative Cases and Postoperative Results—(Continued)*

Name	Sex	Age	Dinitrophenol	Vision Impaired	Vision Before Operation	Examination	Operation	Complications	Vision P. O.
V. M. Left eye	F.	55	Same	Same	Same	Same	July 10, 1935. Combined extraction with complete iridectomy.	None	20/15 +12.0=+2.25× 180 add +3.0
C. R. Left eye			May, 1934, to May, 1935, one capsule daily, increased to two.	December, 1934. Rapid recent loss.	Fingers 4 feet R. and L.	Typical silvery sectors, intumescent shiny appearance.	December 31, 1935, combined extraction with iridectomy, complete. Large lens, capsule in coloboma.	Repeated small hemorrhage from wound, though a. c. restored.	To be refracted
R. H. Left eye	F.	45	March, 1934, to June, 1934, as many as q. i. d.	February, 1935	R — 1/10 LL. P. and P. Ascorbic acid	Capsular changes, cortical cloudy with sectors, post cortex cloth of gold.	Linear, large nucleus, scissors to enlarge incision, round pupil, no iridectomy.	None	20/15 +13.0= +0.5 c x 180°
R. H. Right eye	F.	45	Same	Same	Same	Same	February 18, 1936 Same as above	None	To be refracted
A. H. Right eye	F.	72	Amount ?	August, 1934	H. M. R. and L.	Intumescent dilated pupils a. c. shallow.	Difficult incision capsule thin and burse, complete iridectomy.	Diabetic secondary cataract.	20/20 +9.0=+4.0 c x× 180°
R. B. Right eye	F.	32	April, 1934, to October, 1934, 1 up to 6 capsules daily.	September, 1935	R. fingers 2 feet. L. 4/10, ascorbic with chills and fever.	Wide pupil, iris bulging forward, a. c. shallow. Anterior subcapsular opacities.	October 24, 1935, combined extraction, peripheral iridectomy, knife touched capsule, soft masses out quickly.	None	15/10 +13.0=+2.0 c x 5
R. B. Left eye	F.	32	Same	Same	Same	Same	February 5, 1936, linear extraction, round pupil, no iridectomy, no lenticular remains.	Postoperative iritis	20/20 +11.0 sph.
G. G. Left eye	F.	39	July, 1933, to September, 1933, and June to July, 1934. Total dose, 435 mgs.	May 23, 1935. Light projection	Light projection	Mature intumescent cataract flocculent mass of silvery lens materials, anterior capsule ruptured, shallow a. c.	June 12, 1935. Combined extraction, complete iridectomy.	Slight vitreous presentation	20/20 +10.00=+3.0× 180° add 3.5
E. S. Left eye	F.	56	July, 1934, one capsule t. i. d. Total 15 capsules only.	July, 1935	Fingers, at 1 foot	Mature, silvery, shiny, cataract, shallow chamber.	February 4, 1936, combined extraction, extracapsular large yellow nucleus, iridectomy, black pupil.	None	To be refracted
S. S. Right eye	F.	35	May 3, 1934, to November, 1935.	November, 1935	H. M. right eye 20/20 left eye	Mature, silvery, fluorescent posterior. Cloth of gold opacities. Sector-like opacities.	February 25, 1936, linear extraction with conjunctival flaps. No iridectomy.	None	To be refracted 20/20 O. D. 11.50S= +.37×15
E. B. Right eye	F.	28	June and July, 1934. Four capsules daily. July, 1935, for two weeks.	January 24, 1936	February 20, 1936, R. E. 3/200 L. E. 15/50. February 25, R. E. fingers, 1 foot, L. E. 15/100.	Silvery sector-shaped opacities. Shallow a. c. Many miniature white dots throughout cortex.	February 26, 1936 Linear extraction	None	To be refracted 20/20 +120=+1.25×30

clinical picture described by the present authors. There may be required the coincidence of a number of unrelated events in order to start these peculiar cataractous changes. However, dinitrophenol can scarcely be the essential factor when identical changes are seen in those who have never taken this drug.

Experimentally, dinitrophenol does not produce cataracts in animals on a normal diet, but it is quite easy to produce cataracts, without the addition of dinitrophenol, in animals on diets containing an excess of lactose (milk sugar), with low or rich content of vitamin G (Morgan and Cook: Proc. Soc. Exper. Biol. Med., 1936, 34:281); and there are many other unbalanced or modified diets reported to produce these experimental cataracts.

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W. D. Horner, M. D. (384 Post Street, San Francisco).—In the *Journal of the American Medical Association* of July 13, 1935, together with Doctors Jones and Boardman, I published a description of three cases of bilateral cataract which followed the administration of dinitrophenol for obesity, and which we had studied for several months. In this report we emphasized the rapidity of the lenticular changes and the failure of any sort of treatment to retard the process. We strongly recommended that administration of dinitrophenol be stopped immediately pending further study. Our original descriptions of these cataracts and the assumed connection with dinitrophenol have been borne out since by more than a dozen published articles.

As has been stated, the treatment of these cataracts, as in most others, is surgical. Withdrawal of the drug, local and general measures have failed to influence progress.

Fortunately, no other ocular structure appears to be harmed in these cases, so that the prognosis is excellent if the lens be removed.

My personal surgical experience in these cases comprises seventeen extractions, fourteen of which were done by me and three more at which I assisted. Nearly all were private cases. It is remarkable that we have had only one patient report to the University of California Eye Clinic with this type of cataract.

We employed a narrow Graefe incision in some and a keratome in others. All were done with round pupils, using a peripheral iridotomy in the Graefe incisions and none at all in the linear extractions.

Visual results in the seventeen extractions were excellent. Fifteen, or eighty-two per cent, obtained final vision of 0.8 or better. A needling will be required in the remaining three cases. Our most serious complications were two cases of iritis. One healed with vision of 0.8, the other will require needling at some later date.

SPINAL ANESTHESIA AND THE ANESTHETIST[*]

By W. L. Garth, M.D.
San Diego

Discussion *by Thomas O. Burger, M. D., San Diego; William W. Hutchinson, M. D., Los Angeles; Charles F. McCuskey, M. D., Los Angeles; Elmer M. Bingham, M. D., Riverside.*

MANY anesthetists have been more or less hostile to spinal anesthesia, partly because they have not developed a technique in which they could have confidence, and partly because its use has seemed to cut down the field of their work. This attitude among anesthetists has been engendered by the surgeons, many of whom have made a practice of administering the anesthetic themselves, then employing the referring doctor, an interne, or perhaps a convenient nurse, to look after the patient during the operation. As a result of this careless practice, the mortality incident on the use of spinal anesthesia has been too great, and this useful and valuable method has again been discredited.[1] However, when under the control of a competent and experienced anesthetist, with his knowledge of safety measures in connection with respiratory or circulatory failure, and with his gas-oxygen equipment at hand for instant use, spinal anesthesia becomes a relatively safe and satisfactory procedure. It seems, then, that every anesthetist should strive to perfect for himself a safe spinal anesthesia technique, so that when indicated he can wholeheartedly advocate its use. Briefly, then, we propose to outline such a technique.

PRELIMINARY EXAMINATION

First, is the preliminary visit to the patient, at which time his pulse and blood pressure should be checked and his general condition carefully appraised. This preoperative blood-pressure reading, taken before the ephedrin has been given, is absolutely essential if one is to correctly interpret the later changes to the best advantage. An effort should be made at this time to allay the fears of the patient, explaining something of the details of the anesthetic procedure if requested to do so, but by no means volunteering this information. The premedication which has been given should be noted; preferably, of course, it should have been arranged for previously in consultation with the surgeon. The use of a generous dose of one of the barbiturates is advisable, due to its protective action in the procain-sensitive individual. An average dose of one-sixth grain of morphin is indicated, but atropin should be omitted, since it tends to increase the heart rate, as does ephedrin. The usual dose of 50 milligrams of ephedrin should be ordered for administration, just as the patient enters the surgery. Contraindications to the use of spinal anesthesia, such as a history of coronary disease, advanced myocarditis, or the presence of any degree of shock, should be ruled out at this time. A pulse pressure of over 100, while not an absolute contraindication, should at least call for a reconsideration of the type of anesthetic to be used.

IMPORTANT FACTORS IN ADMINISTRATION OF ANESTHETIC

Regarding the administration of the anesthetic, we shall stress only the important points. First is position. Ordinarily it is best to make the injection with the patient lying on his side, his knees drawn well up on the abdomen, and his head bent downward as much as possible. One knee should be just over the other knee, the upper foot just over the under foot. The arms should be so disposed that the shoulders are as nearly as possible in a perpendicular line to the table. In case difficulty is encountered, it will often be found of great advantage to make the tap with the patient in the upright position. (Caution—Use no hypobaric solutions.) The method for doing this is to have the patient sitting on the side of the table, supported by an attendant, his feet resting on a stool, his back bent forward and downward as much as possible. The upright position is especially desirable in dealing with the obese patient, and every anesthetist should familiarize himself with its use.

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[*] Read before the Anesthesiology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13 to 16, 1935.

With the patient in the selected position, draped and ready, the iliac crest should be located, this level being approximately that of the fourth lumbar interspace. The skin and subcutaneous tissues over the third space, also the deeper tissues on each side of the interspinous ligament should then be thoroughly infiltrated with .5 per cent procain solution, which makes possible a painless tap. While waiting for this to take effect, the ampoule of procain can be opened, the spinal needle (Pitkin type, 21 gauge) selected and tested, and a final check made as to the patient's position. At this time an attendant should support the patient in position, holding him securely until the tap is made and the injection completed. The needle should be introduced just below the appropriate spinous process, angling slightly upward, so as to avoid contact with the spine below. After the point has pierced the skin and subcutaneous tissues, it is well to check up on its direction, since in forcing it through these tissues it often gets out of line. The needle is then pushed in slowly and guardedly, until a slight click or give is felt, which usually marks its emergence from the interspinous ligament. Upon introducing it a few millimeters further, another click is felt, which indicates that the spinal canal has been entered. When the stylet is removed, spinal fluid should flow freely, and a slight turning or inward movement of the needle should not interfere with this flow.

AMOUNT OF SPINAL FLUID

Regarding the amount of spinal fluid to use, Bingham [2] and others have shown by their model canal experiments the tremendous importance of "drift" in determining the distribution of the injected procain. A five per cent mixture of procain in spinal fluid, a dilution not uncommonly used, layers out very rapidly, the bulk of the injected solution reaching the low points in a test canal within less than one minute. Concentrations up to 10 per cent, commonly used in the past, carry some threat of a resultant nervous system lesion [3] and, in connection with the use of Trendelenburg position, very definitely increase the hazard in spinal anesthesia. It seems desirable, then, to use as low a concentration of procain as is practicable, which is about 3 per cent. Drift is thus minimized, damage to the cord is avoided, and spinal anesthesia results become much more predictable. Even when using these dilute solutions of procain, it is advisable not to place the patient in Trendelenburg until ten minutes have elapsed, so that the bulk of the dose will have been absorbed, hence, can no longer drift.

Having withdrawn the predetermined amount of spinal fluid, it should be thoroughly mixed with the procain and reinjected. The patient should be required to turn on his back immediately, cold towels placed over his eyes, and the blood pressure cuff applied to his arm. While this is being done the patient should be reassured as to the numbness in his legs, and as to what else he is to expect. It is important to tell him that he will feel the "prep" solution, for instance, and that he may feel other things touching him, even pulling at him, but that he will surely feel no pain. He should be encouraged to breathe more rapidly, or deeply, or both, and the extent of his respiratory excursion must be closely observed. Should this diminish markedly at any time, it is wise to begin the administration of oxygen at once, not waiting for untoward symptoms to develop. Nausea and retching can usually be entirely avoided if this is done, which is worth while from the standpoint of comfort alone. The blood pressure will also be better sustained and, most important, the deleterious effects of anoxemia on the heart will be avoided. All poor-risk patients, also all upper abdominal cases, should have oxygen administered throughout their operation. The pulse and blood pressure should be checked at least every five minutes, and charted graphically. Only by the conscientious use of such a chart can the subsequent changes in the patient's condition be interpreted to best advantage, and remedial measures instituted at the proper time. The practice of taking only occasional pressure readings at one's convenience is a slipshod method, and is not to be tolerated if the best results from spinal anesthesia are to be obtained.

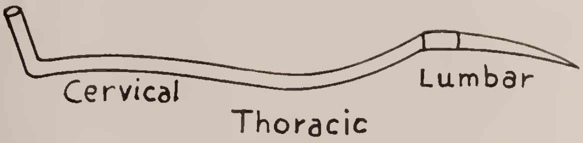

Fig. 1.—Spinal anesthesia and the anesthetist. Model canal demonstration of drift.

Tube contains a dextrose saline mixture, made up to specific gravity 1.006, which is that of the average spinal fluid.

One hundred and fifty milligrams of procain, mixed with 3 cubic centimeters of the dextrose saline solution (5 per cent concentration), and colored with a drop of methylene blue, is injected through the rubber connection at the hypothetical lumbar region.

The surprising rapidity with which the procain solution seeks the lowest levels in the canal illustrates the importance of drift in spinal anesthesia.

TREATMENT OF COMPLICATIONS

In case of an early alarming fall in blood pressure, together with other signs of hypersusceptibility or of overdose, such as loss of voice, pain in the throat or chest, or inability to breathe, carbon dioxid and oxygen should be started immediately and .5 cubic centimeters of adrenalin given. If the operation has not been started, the surgeon should be required to wait a few moments. If he has begun his work, he should be requested to stop and to continue only when the situation is definitely under control. These procain-sensitive patients must be spared the shock of any operative procedure while they are recovering from their attack of drug poisoning. They will usually recover sufficiently within a very few minutes so that the operation can proceed, but once in a thousand times or so it would undoubtedly be better to postpone the surgery, doing it later under a general anesthetic. Probably we should use a procain sensitivity test on all of our spinal anesthesia patients, just as routinely as a clotting time is done preceding tonsillectomy. But until we do so we must keep in mind that certain individuals are procain-sensitive, and act accordingly.[4]

A later marked drop in pressure may occur about twenty or twenty-five minutes after the administration of the anesthetic, its abruptness often being indicative of its probable severity. Prompt treatment is called for, since it is much more difficult to influence the pressure once it has reached the shock level. The head of the table should be lowered, and carbon dioxid and oxygen administered freely. In the presence of anoxemia ephedrin is actually contraindicated,[5] but with the patient breathing oxygen an additional dose of ephedrin will usually help. The important thing, of course, is the pulse pressure. As long as this stays above 20 millimeters, one should not be too much concerned about a pressure drop, particularly if it is symptomless. When the cause of the fall in pressure is hemorrhage, as occasionally happens, it must be treated by the prompt use of intravenous fluid, preferably 5 per cent glucose, in whatever quantity is needed to restore the pressure to a reasonable level. In the meantime, the first thought is to get the patient's head down as much as is possible under the circumstances, placing the patient in extreme Trendelenburg unless it interferes too much with the work of the surgeon. Then, if the hemorrhage has been quite severe, arrangements for a transfusion should be made, to follow immediately.

ACCESSORY AIDS

A completely equipped gas machine should be instantly available, since supplementary anesthesia may at any time be needed. Even if good surgical anesthesia has been obtained, certain patients will require an analgesic dose of a general anesthetic to keep them comfortable and under control. Gas is the only satisfactory agent, since the surgeon need hardly pause in his work while induction is completed; whereas if ether must be used there is often a trying period of inaction for the surgeon and of stress for the anesthetist. Provided the spinal block has been successful, and that gas is only needed for analgesia, nitrous oxid with generous amounts of oxygen is to be preferred. But if anesthesia is only partial the addition of ether will usually be required.

At the close of the operation, carbon dioxid and oxygen should be given freely, so that the lungs are well aerated, to avoid atelectasis. Unless this is done routinely these patients will develop pulmonary complications just as frequently as though they had had an ordinary ether anesthetic.[6] If the operation has lasted only thirty or forty minutes, so that the spinal effect is still but little diminished, it is necessary to keep the patient in Trendelenburg position while returning him to his room, and also to have the foot of the bed elevated. Otherwise he may be subject to a violent drop in pressure at the time his position is changed, particularly if he has been in a marked degree of Trendelenburg on the table. Substandard risk patients, and any others whose condition at the end of the operation is not entirely satisfactory, should also be kept in the head-down position while being moved to their rooms, and for several hours afterward. In fact, if the hospital equipment is such that this can be done conveniently, it would probably be better to handle all postoperative patients in this manner.

Occasionally, perhaps once in a thousand times, breathing will be so seriously interfered with that artificial respiration will be required temporarily. It is a life-saving procedure when indicated, and every anesthetist should realize that, barring accident and causes aside from the anesthetic itself, the patient will never die on the table if properly cared for in this respect. Animal experiments have demonstrated,[7] and experiences with tremendous accidental intraspinal injections of local anesthetics in human beings have proved this to be a fact.

SUMMARY

1. Spinal anesthesia is again falling into disrepute, due to widespread carelessness of persons using the method.

2. Professional anesthetists should recognize its value, develop for themselves a safe technique, and, when indicated, wholeheartedly advocate its use.

3. Some factors in a safe technique are:

(*a*) Careful selection of patients, ruling out of cardiac cripples and those in shock.

(*b*) The use of low concentrations of procain and the absolute avoidance of the early use of Trendelenburg position to minimize "drift."

(*c*) Conscientious minute-to-minute care of the spinal patient by a competent, experienced anesthetist.

(*d*) Free use of oxygen and carbon dioxid for all poor-risk patients, and for others, as indicated.

(*e*) The life-saving value of artificial respiration in caring for the occasional patient who does poorly under spinal anesthesia.

233 A St., San Diego.

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DISCUSSION

Thomas O. Burger, M. D. (Medico-Dental Building, San Diego).—Spinal anesthesia is a world-wide, established method of anesthesia for surgery of the lower half of the human body. However, there are many considerations that enter into its use. First, is the surgeon's selection of patients that are proper for its use. Second, and of probably greater importance, is the anesthetist who administers a spinal. It still holds that ether is the choice of anesthesia if just any doctor you can pick up is to give it. The giving of gas requires a trained anesthetist, but I feel that spinal requires a skilled, meticulously careful anesthetist, of which Doctor Garth is the type. Any slight slip or negligence may be very disastrous, and for this reason many failures and criticisms have been unjustly made against spinal.

We do admit that spinal is not perfectly controllable, nor does it act alike for all patients, although the same amount of novocain, the same amount of spinal fluid and the same interspace is used. Doctor Garth's illustration gives some reason for the discrepancies and is well worth considering.

We still like to elevate the lower extremities so that gravity will help to keep more blood to the vital centers instead of gravitating to the lax vessels in the legs, and so keep the blood pressure from dropping so much. We do not see many of the severe blood-pressure drops that occurred earlier, neither do we have headaches, except occasionally.

We have had about two thousand spinals and do not regret the large proportion. A few cases may have been disturbing and one disastrous. The only death, we feel now, could have been avoided. The ideal operating safety for the patients, from the standpoint of relaxation and lack of rough handling of abdominal structures, we firmly believe, has saved many more than the one lost.

I cannot see any reason for considering Pitkin's solution or any other than pure novocain crystals dissolved in the patient's spinal fluid. This is more physiologic, and gives the greatest margin of safety.

I wish to compliment Doctor Garth on his paper, a real value in emphasizing important demands if spinal anesthesia is used. Those surgeons who went on record as "agin it," when spinal technique made it satisfactory, are mostly still "agin it," and others who cannot finish in the forty-five minutes time limit all help to condemn spinal anesthesia; but I still feel it is the ideal anesthesia for many lower abdominal sections.

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William W. Hutchinson, M. D. (1930 Wilshire Boulevard, Los Angeles).—Spinal anesthesia, if administered and constantly supervised by an experienced anesthetist, is a comparatively safe procedure. Accidents occur on rare occasions; but mention any anesthetic in which accidents do not occur!

The preliminary knowledge of the patient's condition by the anesthetist is absolutely essential, and he should be the one to prescribe the preliminary medication. I feel that the barbiturates are indicated, not only for their protective action, but to allay the fear of the patient and to prevent psychic shock.

One point in technique which I have found to be of great advantage is the use of the Sise guide. This not only aids in directing the spinal puncture needle, but also prevents the point which enters the dura from coming in contact with the skin.

My personal feeling is that "drift" may be overemphasized, as I do not think that the flow of fluids in an unobstructed glass tube is analogous to the flow of fluids in a complicated system like the spinal canal.

If supplemental inhalation anesthesia does become necessary it should be given early, as soon as the patient shows signs of restlessness, and before pain is complained of. If this is done, in all probability, only an analgesic dose will be required; but if the anesthetist waits until the patient is complaining of actual pain, it has been my experience that induction is slow and very difficult, and much valuable time is lost during which the surgeon must stop work, due to straining and abdominal tension.

Spinal anesthesia is a valuable procedure and in selected cases is next to indispensable. The method should not be condemned if trouble arises when the anesthetic is administered by the inexperienced or is carelessly supervised after the puncture, any more than a valuable surgical procedure should be condemned because an inexperienced surgeon, unfamiliar with the technique, has failures or possibly loses a case.

I agree heartily with Doctor Garth's conclusions, and compliment him on his paper.

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Charles F. McCuskey, M. D. (3435 Amesbury Road, Los Angeles).—Spinal anesthesia undoubtedly has a place in the field of surgery as one of the methods of anesthesia. In my opinion its use should be reserved for those cases in which a general anesthetic is contraindicated, or where the quiet abdomen and extreme muscular relaxation will facilitate the work of the surgeon sufficiently to justify an increased anesthetic risk.

Babcock's statistics indicate a mortality of approximately 1:1000 in properly selected cases. The Charity Hospital in New Orleans reports 31,000 spinal anesthetics in the past ten years with twenty-eight deaths on the table or before the anesthesia had worn off. They also made a study of postoperative pulmonary complications following the use of spinal and general anesthesia. In a series of 3,364 cases in which accurate records were kept, 1,668 were upper abdominal operations and 1,696 were lower abdominal. Of this group 4.19 per cent had postoperative pulmonary complications. Of these, 4.8 per cent occurred in the upper abdominal group and 3.5 per cent in the lower abdominal group.

Where spinal anesthesia was used alone, 4.02 per cent had pulmonary complications; and where it was necessary to combine spinal with some form of general anesthesia, 8 per cent had pulmonary complications. When inhalation anesthesia was used alone, 4.44 per cent had postoperative pulmonary complications.

Doctor Garth has described a very satisfactory method for the administration of spinal anesthetics. This is something each individual must work out for himself, keeping in mind that the duration of anesthesia is determined by the amount of procain injected, and the height of anesthesia is regulated by the volume of solution injected; also the rate of injection and the size of the spinal puncture needle used.

The advisability of having available at all times during spinal anesthesia a satisfactory means of administering oxygen intratracheally in case of respiratory paralysis, cannot be overemphasized. This will undoubtedly avoid some of the fatalities when drugs that paralyze respiration ahead of the heart are used as the anesthetic agent.

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Elmer M. Bingham, M. D. (Riverside County Hospital, Riverside).—The antagonism which existed a few years ago toward spinal anesthesia was certainly fostered by the attitude of the surgeons. Unfortunately, some surgeons are still administering their own spinals, and leaving the aftercare in inadequate hands. They should realize that the subsequent observation is of as much, or more importance than the administration of the anesthetic.

Too frequently still the anesthetist sees the patient for the first time in the operating room, preoperative medication being ordered by the surgeon without consultation. We find cases where the type of anesthetic is similarly chosen.

I agree without reservation to the preoperative medication and technique as outlined. I do not like to see patients knocked down by morphin and scopolamin to the point that respiration is depressed and coöperation eliminated.

I am convinced that the consideration of specific gravity is the most important factor in administering spinal anesthesia. The demonstration with the model spinal canal is striking and convincing. It could and should be demonstrated to every medical student or interne. Before he administers spinal anesthesia to patients, let him try the glass canal for himself.

I believe anesthetic solutions that are heavier than spinal fluid are more easily controlled. Occasionally the anesthetic level is not high enough, but, properly controlled, will never be too high. The following note was found in the seventh edition of Morris' "Human Anatomy" (1925), page 1409, shortly after I had submitted my first experiments with the glass canal: "In the supine position the lowest part of the subarachnoid space is in the midthoracic region, and an anesthetic fluid, nondiffusible and of higher specific gravity than the cerebrospinal fluid, will tend to gravitate there. The level of anesthesia can be varied by raising the pelvis or shoulders to different levels."

Finally, the choice of anesthetic must include consideration of facilities and ability. For this reason spinal anesthesia at our County Hospital is the one of choice where absolute contraindications are not present.

MALIGNANT TUMORS OF THE TESTIS*

By George D. Maner, M.D.
Los Angeles

Discussion *by E. M. Butt, M.D., Los Angeles; A. G. Foord, M.D., Pasadena; Zera E. Bolin, San Francisco.*

IN the testes one finds a great variety of malignant and benign tumors ranging from highly undifferentiated, malignant round-cell tumors, apparently uniform in structure, up to complex ones composed of adult tissue. The diversity of opinion existing as to the interpretation and classification of these tumors is as varied as their structure. Even today we find little unanimity of opinion; it seems that the histologic diagnosis and interpretation appear to depend largely upon the personal inclination of the pathologist or surgeon examining the material.

NATURE OF TUMORS OF THE TESTICLE

The controversial nature of these tumors dates back to 1696, when St. Donat first described a complex tumor in a testicle. Johnson, in 1854, first identified elements of all primitive germ layers in one of these tumors, and his findings were confirmed microscopically by Langhans and Kocher in 1877. These observers were the first to lay the basis for an accurate classification according to microscopic study. Several years later, Wilms reviewed the subject and simplified somewhat the complex problem by recognizing the tendency of one element in a teratoma to predominate over others. He was the first to postulate the theory that teratoma were derived in some fashion from sexual cells, and that adenoma, carcinoma and the like arose from the tubular epithelium, while leiomyoma, fibroma and sarcoma were derived from the stroma cells. Later Wilms, upon reëxamining tumors previously considered as homologous, such as carcinoma, chondroma, sarcoma, found derivatives of all three layers in them and revised many of his former conclusions. Pick also observed the tendency of one element to predominate or even suppress all the others.

CHEVASSU'S VIEWS

In 1906 Chevassu agreed in principle that many of these tumors were tridermal in origin, but contended that a large number (about 50 per cent) were homologous, were unrelated to teratoma, and were derived from the spermatocytes rather than embryonal sex cells. He termed these tumors "seminome" (now anglicized to seminoma). His conclusions were based largely upon the fact that the characteristic seminoma cell was identical in morphology with the spermatocytes.

EWING'S CONCLUSIONS

In 1911 Ewing reviewed the subject and published a most important contribution to the pathology of these tumors. He challenged the views of Chevassu, and concluded that practically all testicular tumors were teratomatous. In his article he says: "All common, and nearly all rare tumors of the testes, arise from totipotent sex cells in the neighborhood of the *rete,* whose normal development into spermatogonia has been suppressed, but whose potencies remain intact and ready to express themselves in the various forms of simple or complex tumors. . . . The monodermal forms of these growths represent one-sided developments of tridermal teratoma. Very rarely do stroma, duct cells, interstitial cells, or adult seminiferous tubules give origin to characteristic growths."

In 1925 Hinman, Gibson and Kutzman confirmed Ewing's findings, concluded that the preponderance of evidence was in favor of Ewing's theory, and considered the term seminoma as a misnomer.

THE TWO SCHOOLS OF THOUGHT

From these investigations there has developed two opposing schools of thought. Ewing, Martland, Hinman, Gibson, and others, contend that "for practical purposes there is only one tumor, viz., a teratoma." Chevassu, Schultz, Eisendrath, Bell, and others, contend that, in addition to the heterologous tumors, there are a large number of pure homologous tumors, so-called seminoma.

Unique and convincing arguments, backed by evidence, have been brought forward by proponents of both schools, but it is needless to review them as there is nothing new to add. In the last analysis we have to consider but two types of malignant tumor: the teratoid or mixed tumor, and the apparent unicellular type of tumor, viz., seminoma or embryonal carcinoma.

The entire question as to the pathology and classification of these tumors could be simplified if we would accept Ewing's viewpoint, in that the seminoma merely represents a monodermal overgrowth in a tridermal tumor. It was with this idea in mind that this study was instituted.

A pathologist receiving surgical pathologic material from a good-sized general hospital population is impressed, and to a degree amazed, by the great confusion existing in the general surgeon's mind as to the classification and nomenclature of these tumors, as well as the origin and degree of malignancy of the various types encountered, and the varied and even different choice of therapeutic methods selected. To a degree the rarity of these tumors may be blamed for some of the confusion and lack of information, since they constitute only about 0.5 per cent of all male hospital admissions.

CLASSIFICATION OF HINMAN AND GIBSON

Hinman and Gibson, in their publication, proposed a convenient and satisfactory classification in that it is simple but still includes the essential pertinent facts. They considered all malignant testicular tumors as heterologous in type. A part of their classification dealing with malignant tumors of testes is appended.

II. Heterologous tumors (teratomata).
  A. Benign:
    (1) Adult teratoid tumors.

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* Read before the Pathology and Bacteriology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

B. Malignant:
  (1) Embryonal carcinoma (heterologous elements may be present or have been overgrown).
    (a) Trophoblastic (chorio-epithelioma).
    (b) Hypoblastic.
    (c) Epiblastic.
    (d) Seminome (mesoblastic?) (embryonal carcinoma of Ewing).
  (2) Sarcomatous mixed tumor (very rare and probably represent one-sided developments of teratoma).

Since the publication of this classification, I have preferred to follow it, recording diagnoses as malignant teratoma of testis, seminoma variety; or malignant teratoma, adenocarcinomatous in type, etc., or using some such qualifying phraseology as applied to different tumors, thus informing the surgeon as to the type of tumor he is dealing with. This information is important, as there appears to be vital clinical, pathologic and biologic differences in the various varieties, particularly as to the mode of development, and rapidity and structure of primary metastases; period of expectancy, radiosensitivity, and behavior of Prolan A (follicular ripening hormone of the anterior pituitary) output in the urine.

FERGUSON'S CONTRIBUTION ON THE BIOLOGIC PHASES

Ferguson's valuable contribution on the biologic phase of the subject of testicular tumors deserves especial mention. He finds that the Prolan A content of the urine varies in proportion to the embryonal character of the tumor, and thus in relation to the structure of the tumor. He classes tumors, according to amount of hormone excretion, in the following order: (1) chorio-epithelioma, (2) embryonal adenocarcinoma, (3) embryonal carcinoma with lymphoid stroma, (4) seminoma, (5) teratoma with adult characteristics. From these investigations he has been able to work out a definite, quantitative relationship existing between the degree of radiosensitivity to the excretion of Prolan A, thus: the greater the amount of hormone excreted, the more sensitive the tumor. He is also of the opinion that a quantitative biologic assay is a more valuable index as to radiosensitivity than histologic interpretation.

His investigations show that not only can a diagnosis of the primary tumor or occurrence of metastases be determined by assay of hormone excretion, but that it is also of value in differentiating the various types of teratoma. The hormone excretion level varies in different varieties of teratoma as follows:

Chorio-epithelioma, 50,000 or more mouse units per liter.
Embryonal adenocarcinoma, 10,000-40,000 mouse units per liter.
Embryonal carcinoma with lymphoid stroma, 2000-10,000 mouse units per liter.
Seminoma, 400-2000 mouse units per liter.
Adult teratoma, 50-500 mouse units per liter.

It seems significant that all these varieties of tumors, including even the seminoma, give rise to Prolan A, and that they fall in such well-defined groups. The mechanism of the hormone production is not definitely understood, even in pregnancy. It reaches its highest concentration in chorio-epithelioma, both in the female following pregnancy and in chorio-epithelioma testis, where the type cell is predominantly trophoblastic. The specific hormone is also excreted in the urine in certain other tridermal tumors, but in very few if any extragenital malignant tumors in the male. Thus it seems that its presence in testicular tumor cases is presumptive evidence of the tridermal origin of these tumors.

Prolan A determinations have been performed in only four of these cases, so that data is insufficient to include in this report.

MATERIAL USED IN THIS ANALYSIS

The basis for this report is a histopathologic analysis of seventeen primary testicular tumors to determine the frequency with which the characteristic seminoma cell occurred in association with tridermal elements in heterologous tumors and, conversely, to determine the incidence, degree and variety of heterologous elements in the so-called homologous (seminoma) tumors. At first it was intended to include twenty-five tumors, but some of the material was derived from metastases obtained at autopsy in which the primary tumor was not available.

It may be in order to relate a few interesting facts concerning these cases. It is significant that the seventeen patients were operated upon by fourteen different surgeons; one surgeon removed three and another removed two of the tumors. Simple castration was done in each instance, and the greater number were given postoperative irradiation. Only one patient was subjected to preoperative irradiation, viz., the chorio-epithelioma case, who is now alive and evidently well at the end of five years and three months. Of the entire series eleven are dead, six are living, but of these, two have only been recently (one and two months) operated upon. All cases were subjected to the same operative treatment, and for general purposes to the same radiation technique; and yet no two cases were identical histopathologically, whether surviving or dead. (See Chart 1).

INTERPRETATION OF THE CHART

On the accompanying chart are recorded the various mesoblastic, hypoblastic and epiblastic representatives, as well as the trophoblastic elements and characteristic seminoma cells found in each tumor. An attempt was made to estimate and list them according to relative percentage incidence; thus the symbol ++++ indicates that this element or elements were predominant.

A simple glance at the chart will acquaint one with the remarkable structural variations encountered. The greater number fall in the group of embryoid tumors, in which either the hypoblastic elements or the characteristic "seminoma" type of cell appear to play the dominant part in conferring malignant potentialities. The term "seminoma cell" is used in a general descriptive sense only; no attempt is made to classify it.

Not a single adult embryoma was found.

The term "teratoma" should be applied only to tumors composed of elements derived from all

CHART 1.—*Tumors of the Testicle*

No.	Age	Mesoblastic		Hypoblastic		Epiblastic		Tropho-blastic	Semi-noma
		Benign	Malignant	Benign	Malignant	Benign	Malignant		
1	26	+	+	++	++++	++	+	+	+
2	26	++	0	+	++	++	+	+	++++
3	38	0	0	+	0	+	0	Trace	++++
4	29	+	+	++	+++	+	+	0	Trace
5	29	0	0	0	+	0	0	++++	0
6	31	+	+	+	++	+	0	+	+
7	23	+	0	++	++++	+	0	0	+
8	27	++	0	+	+++	+	0	0	+++
9	20	++	0	+++	0	+	0	0	+
10	P	++	+	+++	0	++	0	0	0
	36								
	M	+	0	+	+++	+	0	0	+
11	37	0	0	0	+	0	0	0	++++
12	36	0	0	+	0	+	0	0	++++
13	33	+	0	+	++++	+	0	+	0
14	47	0	0	0	+	0	0	0	++++
15	35	0	0	0	+	0	0	0	++++
16	28	+++	0	++	+	+++	0	0	+
17	33	0	0	0	0	0	0	0	++++

P. Primary tumor.
M. Metastatic tumor.

three primary germ layers. In these malignant complex testicular tumors representative elements of only two layers, and occasionally only one layer, are usually found, so the term "teratoid" is preferable over the rigid term "teratoma."

In this series we find seven cases which could be considered as monodermal tumors, depending upon the inclination of the observer, the characteristic seminoma type of cell predominating; but in six of the seven cases representatives of one or more primary germ layers were also present in some degree, and only in one instance were they not found (Case 17). Thus it seems that we have only one monodermal tumor or seminoma. Conversely, in the teratoid group, comprising ten of the number, characteristic seminoma cells in varying amounts were found in every case except one. In the seventeen primary tumors, seminoma cells were found in all but two, one being trophoblastic. This characteristic cell was present irrespective of whether the predominating elements were epiblastic, hypoblastic, or mesoblastic. It seems that in the smaller seminoma type of tumor tridermal elements were more abundant and more easily found than in the larger ones, thus bearing out Ewing's view, that in the larger seminomata the tridermal elements are crowded out—probably because of the rapid growth capacity of this cell.

In this group we find only one apparently pure or homologous seminoma type tumor (No. 17) and five (Nos. 3, 11, 12, 14 and 15) almost pure seminomatous tumors. In two cases (Nos. 2 and 8), although seminoma cells were in abundance, other elements from one or more primitive germ layers were represented in differing degrees and in varying grades of complexity, so as to leave no question as to their teratoid origin. In the chorio-epithelioma a small amount of adenocarcinoma was found. Only one tumor (Case 6) was found in an undescended testicle.

Since the greater number of testicular tumors show highly variable complex histologic characteristics and considerable variation in individual germ-layer representation in different specimens, and even in different portions of the same specimen, it is unwise to examine only single, or two or three sections in a given tumor and attempt to draw conclusions. One cannot obtain a true interpretation except from multiple sections. In Case 10, originally only a part of the primary tumor was received for examination; history was not available. Multiple sections were made, and only benign or differentiated mesoblastic, hypoblastic and epiblastic elements were found, and so a diagnosis of probable benign teratoid tumor was given. Later another specimen was received labeled "retroperitoneal tumor," and examination of this revealed malignant hypoblastic representatives as well as other elements, and even islands of characteristic seminoma cells.

In these tumors, cells from the individual primitive germ layers may proliferate at different times and stages of development and at different rates, so that it is hazardous to attempt to predict which element or elements will predominate in either the primary tumor or its metastases.

IN CONCLUSION

Perhaps no definite conclusions can be drawn from this study, which covers only a comparatively few cases; but at least one is justified in inferring that the greater number, if not all, malignant tumors of the testicle are primarily tridermal in origin, and for practical purposes can and should be considered as such.

I am of the belief that pure homologous (so-called monodermal or seminoma) tumors do not exist, and that if this type of tumor is subjected to severe histopathologic analysis, it will be found to represent merely an overgrowth of one malignant element at the expense of all other blastodermic derivatives. This contention is substantiated by the demonstration of representatives of one or more blastodermic derivatives in all the tumors in this series with one exception, whether the predominant type of cell was adenocarcinomatous or seminoma in type.

657 South Westlake Avenue.

DISCUSSION

E. M. Butt, M. D. (3551 University Avenue, Los Angeles).—Doctor Maner's paper emphatically recalls to our attention that the majority of malignant tumors of the testicle are teratoid in origin, tridermal in constitution, and not homologous or single-cell tumors arising from adult tissues. This is an old problem that has been studied by such able men as Ewing, Wilms, Pick, Hinman, and others. These investigators have produced an overwhelming amount of evidence to refute the contentions of Chevassu in regard to the histogenesis of the tumor, which he has termed "seminome." Furthermore, the works of these men have served greatly to simplify the classification of tumors of the testis. And yet one cannot help being impressed with the confusion that prevails as a result of the diversity of opinions regarding this subject, as are recorded in the literature and some textbooks. This confusion clearly emphasizes the need of such papers as Doctor Maner's and, too, the need of subjecting testicular tumors to an accurate histopathologic study.

It is important to note that in eight of the tumors of the testis reported by Doctor Maner, the predominating cell type is the cell of the "seminome," and that seven of these tumors contain heterologous elements. Furthermore, it is noted that in seven of the seventeen tumors "seminome" cells are found associated with predominating hypoplastic or epiblastic elements. These facts serve to establish beyond a doubt that the "seminome" of Chevassu is of teratoid origin.

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A. G. Foord, M. D. (Pasadena Hospital, Pasadena).—Doctor Maner's presentation as to the nature and pathologic histology of testicular tumors is marred by two noteworthy omissions. First, he has modestly neglected to state that he studied thousands of microscopic sections before he was able to find that sixteen out of seventeen cases showed other tissue elements than the usual seminoma cell. This is particularly important, since the usual practice in the routine examination of tumors is to section a few blocks and diagnose from these as to the histologic components of the tissue. Second, he has neglected to state definitely what he means by the terms mesoblastic, hypoblastic, epiblastic, and trophoblastic. I trust that he will cover this in his discussion, in order that the pathologist who is not particularly inclined embryologically can thoroughly appreciate the microscopic components included in Chart 1. From my own experiences, I believe that Doctor Maner's final deductions are sound, and that Ferguson's work biologically supports his view. However, from the standpoint of the individual patient, I fear that, so far, fine points of histologic studies have added little to the ultimate prognosis; but it is hoped that further advances in radiology will come to our aid. The first step, naturally, is the continued proper histologic analysis of the testicular tumors, as has been done in this paper, and later correlation of the clinical results from surgery and radiation in the various types of tumor.

Zera E. Bolin, M. D. (490 Post Street, San Francisco). — Tumors of the testes, theoretically, may arise from the sperm cells in any stage of their development; from the tubular epithelium; from the stroma; or from the blood vessels or nerves. Practically, however, there is seen but one malignant tumor of the testes. This has been divided by surgeons into teratoma and seminoma. I do not agree with the view of Chevassu that the so-called seminoma arise from spermatocytes. I believe no one has shown, histologically, that such a relationship exists. I agree thoroughly with Doctor Maner that there is only one tumor of the testes, and that this should be classed in the teratoma group. I think that Doctor Maner has proved his point by his method of taking multiple sections. In a series of testes removed at necropsy and subjected to intensive examination, 1.2 per cent of all organs examined revealed the presence of small tumors which were histologically teratomatous in nature.

It is of extreme interest, along the line of the Prolan A test, that Ferguson was able to obtain a positive assay in all of his testicular tumors. I believe that Doctor Maner has settled the argument and that we can conclude that the so-called seminoma does not exist as a tumor entity. I believe that we can all subscribe to the belief that the various tumors are developments from teratoma with a one-sided proliferation. Incidentally, it is interesting to note that the type of operation, in most of these cases, was orchidectomy and orchidectomy only.

THE SUBTHYROID CHILD*

By Edward J. Lamb, M.D.
Santa Barbara

Discussion *by Donald K. Woods, M.D., San Diego; Helen Pryor, M.D., Palo Alto; Henry E. Stafford, M.D., Oakland.*

It is not the purpose of this paper to discuss all the various manifestations, signs, and symptoms of hypothyroidism in children; but rather to enumerate some of the clinical signs and symptoms, and to discuss some of the laboratory means available for making a diagnosis of hypothyroidism. It is of paramount importance that hypothyroidism in children be detected early, in order that treatment be instituted before rehabilitation becomes too limited.

The growth and development of the child is dependent on an adequate source of diet, vitamins, and a proper balance of endocrine hormones.

ENDOCRINE INFLUENCE ON GROWTH AND DEVELOPMENT

The voluminous literature devoted to growth and development, from the endocrine standpoint, is quite disconcerting to one who wishes to be conservative in his diagnosis and treatment of hypothyroidism.

Perhaps more voluminous has been the literature on the relation of vitamins to growth and development, with comparative delineations of white rats fed or deprived of certain vitamins.

It is to be expected, then, that a real doctor's dilemma has perhaps resulted, since both vitamins and endocrines are vying for first place in the development and nutrition of the child.

Science has proved the merit of vitamin B as essential for the growth and development of animals and human beings. Vitamin A is directly or indirectly responsible for iodin distribution in the body. Vitamin D is essential for the proper distribution of calcium. The thyroid gland is perhaps the chief regulator of both iodin and calcium metabolism. The similarity of the chemical structural formulae, of certain vitamins to certain endocrine hormones, has been responsible for the terms exogenous and endogenous hormones being applied to vitamins and endocrine hormones, respectively.

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* Read before the Pediatric Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

The administration of these exogenous hormones (vitamins) will not suffice if there is an inactivity or imbalance of certain endogenous hormones (endocrines). Life, then, would appear to be a continuous adjustment of endogenous and exogenous hormones to body metabolism. A knowledge of any endocrine inactivity should be of more than academic interest, since therapeutic program is dependent on it.

Endocrinology is not a new science. It is not a specialty unto itself. It is an integral part of pediatrics: The very foundation for this branch of medicine was laid a quarter of a century ago by such eminent pediatricians as Sedgwick, Rotch and others.

In 1910, Julius Sedgwick[1] published an article on creatinin and creatin metabolism in children. He expressed the opinion that as infants' food contains no creatinin, that creatin which occurs in the urine must be of endogenous origin or from the breaking down of certain body tissues.

In the same year, Rotch,[2] studying the relationship of the skeletal system to chronological age, noted an advancement or retardation of the osseous development in certain children. He decided what the normal anatomical development for chronological age was, and published his book, "The Roentgen Ray in Pediatrics."

Lately, Englebach and Shelton have demonstrated that anatomical development may be determined roentgenographically by noting the time and appearance, union, and size of various epiphyseal centers. Studies of the epiphyseal centers of certain joints will furnish precise objective information as to the skeletal development.

It would then appear rather lamentable if physicians, limiting their work to patients in the growing period, do not appreciate the relationship of osseous development to chronological age. A retardation of osseous development is found in hypothyroid children.

HYPOTHYROIDISM

The vagaries of hypothyroidism are so capricious that the pediatrician should roentgen ray certain epiphyseal centers of all patients as a matter of routine. If there is a marked retardation of the osseous development, thyroid medication is usually indicated.

There can be little doubt as to the value of the thyroid gland. Its therapeusis is rational and justified. It is easily administered by mouth. Its toxicity is easily established, and its rate of absorption may be accurately determined.

The administration of thyroid will assist nature in unfolding the destiny of the germinal protoplasm.

Since the future physical destiny of the child is the work of the pediatrician, it becomes imperative that he recognize, diagnose, and treat the subthyroid child before rehabilitation becomes too limited.

Fortunately, the diagnosis and treatment of hypothyroidism is easier and more satisfactory than perhaps any other endocrine deficiency.

The diagnosis is based on history, clinical findings, and laboratory data. The laboratory data alone are only confirmatory, and should not take precedence over clinical observations.

History.—Excellent endocrine history forms have been devised by Gordon,[3] Englebach, and others.

A careful history of inheritance is of great importance. The family history should unearth data pertaining to the stature, allergy, and obvious endocrinopathies of parents, grandparents, and other members of the immediate family.

The personal history of the child should begin with his birthweight. The normal weight for infants is considered between seven and eight pounds. Babies weighing nine pounds or more may be considered as possible thyropituitary potentialities, while babies weighing under six pounds may be possible subthyroid potentialities. Any deviation from the normal growth increment should be noted, especially in relation to any preceding acute illness, such as scarlet fever.

The age of dentition is also important. The lower incisors normally erupt at six months. Retardation is usually a result of a hypothyroid condition.

An allergic history of eczema, colic, and constipation is usually noted in hypothyroid infants; while colic and the insatiable desire for food are often the symptoms of a thyropituitary disorder.

Retarded development in walking and talking are also manifestations of a thyroid deficiency.

History of croup, spasmophilia, tetany, pylorospasm, pyloric stenosis and enlarged thymus must be considered as entities or symptoms of some possible hypothyroid condition, and not merely as coincidental.

In older children we note such factors as temperament, sluggish mentality, nondependability, inattentiveness, forgetfulness, and clumsiness. These characteristics later may become a matter of school record.

Clinical Findings.—On physical examination the general appearance of the subthyroid child may be overweight and underheight, or underweight and overheight, or underweight and underheight. The facial expression, while usually apathetic and dull, may be intelligent and alert.

The skin is usually dry and there may be small patches of eczema, icthyosis, or uticaria present.

The characteristic of the teeth may be pathonomanic of a thyroid disorder. The subthyroid child has soft, easily decaying teeth. The hypothyropituitary child usually shows a separation of the upper and lower incisors, and there may be a complete absence of the upper lateral incisors. Most all hypothyroid or hypothyropituitary children have malocclusion which necessitate orthodential correction.

On examining the heart a split second heart sound may be audible. The pulse is usually slow, with an accompanying subnormal temperature.

The abdomen of the infant is usually protruding, and there may be sufficient weakness of the navel to cause an umbilical hernia. In older children of the hypothyropituitary type there is a deposition of fat in the abdomen and girdle regions.

The genitals of these children are usually infantile.

The extremities usually present padding of fat on the dorsum of the hands or feet. The fingers are usually short and stubby, or short and tapering. Most overweight hypothyroid or hypothyropituitary type children have flat feet.

The conformation of the patient is recorded by seven measurements: circumference of skull, chest, abdomen, and hips, the upper measurement, or distance from the superior portion of the symphysis pubis to the vertex of skull, and the lower measurement, or distance from the pubis to the sole of the foot, and the span, or distance from tip of one middle finger to the other, with arms fully extended.

Laboratory Data. — Roentgenograms should be made of the six joints of the extremities: the shoulder, elbow, hip, knee, hand, and foot.

At birth, a roentgenogram of the knee will show the distal epiphysis of the femur and the proximal epiphysis of the tibia.

At one year the following osseous centers should be visualized by roentgenogram in the wrist: the capitate, hamate, and distal epiphysis of the radius; in the shoulder the epiphyseal head of the humerus; in the hip the epiphyseal head of the femur, while the ankle should show the presence of the external cunieform and the distal epiphysis of the tibia.[4]

For sake of brevity, let us follow the development of the epiphyseal centers of the wrist. At three years the triangularis and epiphysis of the phalanges and metacarpal bones should appear. At four years the lunate should appear. At five the trapezium and scaphoid should make their appearance. At six years the trapezoid and distal epiphysis of the ulna, and at ten years the pisiform is present. At fourteen to sixteen years, there is the union of the epiphysis of the phalanges and the metacarpal bones.

As the pituitary balance must be considered in all cases of thyroid imbalance—since the pituitary hormone exerts a stimulating effect upon the thyroid gland—it is obviously quite necessary to x-ray the sella turcica in order to visualize the size of the pituitary body.

The pituitary function may also be estimated by blood and urine sugar tolerance tests.

Thyropituitary individuals usually present a flat blood sugar curve.

The evaluation of blood cholesterol appears to merit much consideration by such men as Brontein, Hurxthal,[5] and others, who report high cholesterol values in hypothyroidism.

The basal metabolism is no doubt of great importance in children over eight or nine years of age. Young children do not coöperate satisfactorily to warrant this test.

An electrocardiogram, if taken, may show a flattening or inversion of the *T* waves, especially in Lead II. *P* waves are small or absent in myxedema.

⁂

The following two cases illustrate two boys who, although of the preadolescent age, made immediate improvement when thyroid was administered, and who still require (six years later) the continuation of thyroid to maintain a normal metabolism.

REPORT OF CASES

Case 1. *Case of Hypothyroidism with Paradoxical Signs and Symptoms.*—W. P., male, age 12, came to my office on September 5, 1929. Chief complaint: Failure to gain in weight. In the past two years he had gained only four pounds. The child was adopted at the age of eighteen months, and nothing was known of his family history or his early life. Past illnesses included chicken-pox and whooping-cough. He had always been underweight. He had been forced to eat until he was six or seven years of age. His appetite for the past three years had been very good.

Examination revealed a tall, slender, hyperactive child, 59½ inches tall, weighing 82¼ pounds. Pulse, 74; temperature, 98. Skin clear and well tanned. Tonsils removed at six years of age. Teeth in good repair, but showed lack of dentine, and the six-year molars had been filled with gold inlays. No pathology was noted in heart, lungs, or abdomen. Genitals and extremities were normal. He had been immunized against diphtheria and smallpox. Blood Wassermann was negative. Basal metabolic rate, minus 23. Blood sugar determination was normal. Patient was given one-half grain of thyroid daily and immediately began to gain in weight. On September 24, eighteen days after the first visit, he had gained 3¼ pounds; temperature, 98.4. On December 23, three and one-half months later, he had made a total gain of nine pounds. His height at that time was 60¾ inches, or a growth of 1¼ inches in three and one-half months. Temperature, 97.8; pulse, 80. Thyroid was then increased to three-fourths grain daily, and on July 22, 1930, he weighed 102 pounds and was 63 inches tall. In ten months this patient gained 20 pounds and grew 3½ inches. Subsequent basal metabolisms have shown the necessity of a maintenance dose of one-half grain of thyroid daily.

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Case 2. *Thyropituitary Deficiency.*—P. G., male, age 13 years 4 months.

Diagnosis: Hypothyro-pituitary. Came to the office in January, 1929.

Chief complaints: Obesity, tires easily, difficulty in school.

Family history: Father, living and well, age 49; height, 5 feet 3 inches; weight, 145 pounds. Mother, living and fairly well, age 39; height, 5 feet 6 inches; weight, 123 pounds. Had operation for exophthalmic goiter four years previous.

Past history: Childhood illnesses, measles, pertussis, and influenza.

Personal history and present illness: Birth weight, 7 pounds 12 ounces; first tooth at five and one-half months. Walked at one year, talked at one year. Not overweight as a baby. Active child. Has some difficulty in school. In other respects bright, but has to study quite hard. Has not had to repeat any grades. Has been overweight since a small child, and for some years has failed to make a normal growth gain. No digestive upsets and no allergic manifestations.

Present examination: Weight, 130½ pounds; height, 59 inches. Upper measure, 28¾ inches; lower measure, 30¾ inches; span, 61 inches. General appearance is that of an obese boy with slight Mongolian appearance. Fat distribution is general, especially marked in girdle and mammary regions. Hair, pubic hair just starting. Ears, eyes, nose, negative. Teeth, very pronounced malocclusion. Abdomen, negative. Extremities markedly flat-footed. Genitalia: penis small, scrotum and testes normal. Blood pressure, 98/60. Basal metabolic rate, minus 23.

This boy was given thyroid, grain one-half; whole pituitary, grains two, salol coated capsules twice daily.

In eight months he grew two inches and lost nine pounds. In one year he made a growth of three and one-half inches in height, and weight remained unchanged. He had become very active and never tired, in contrast to his former lethargic state. Genitalia now normal size. Basal metabolism rate was plus seven.

This boy at first required a combination of thyroid and pituitary treatment, but later thyroid, grain one-half daily, was sufficient to maintain a normal basal metabolic rate.

MEDICATION

A few years ago the impression was that if thyroid dysfunction existed and thyroid were given, beneficial results would be attained *at once.* If thyroid was not necessary and it was given, we should have symptoms of overdosage as loss of weight, etc.

It has been my observation, and the observations of others, that in many instances of underweight hypothyroid children there may be an initial loss of weight, and some elevation of temperature and pulse due to the toxins, produced by the catabolism of myxedematous tissue.

In all cases of hypothyroidism it is recommended that small doses of thyroid be administered, and gradually increased to the maintenance dosage. All patients receiving thyroid medication should have periodic clinical examinations, together with roentgenograms and metabolic rechecks in order that the dose of thyroid may be increased or decreased.

SUMMARY

1. The most important problem in treatment of hypothyroidism in childhood is early recognition.

2. The classical signs and symptoms of hypothyroidism may not always be present.

3. The longer treatment is delayed, the less opportunity there will be of obtaining the maximum therapeutic results.

4. Laboratory aids other than basal metabolic rate include appraisal of blood cholesterol, blood sugar tolerance, and creatin excretion in the urine, together with probably the most valuable of all—the roentgen study of the anatomical development.

1515 State Street.

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DISCUSSION

Donald K. Woods, M. D. (2545 Fourth Avenue, San Diego).—This paper on the subthyroid child brings to our attention many facts which are very important, particularly to pediatricians and general practitioners. I think the author's emphasis of the fact that endocrine disturbances are a matter for serious consideration by anyone caring for children, rather than only by specialists in endocrinology, is very timely. Growth and development are not synonymous, as has been clearly indicated. It is highly important that we at all times know the bone age of a developing child, particularly if there is any question about its normal progress. This method of checking a potential thyroid deficiency is rather accurate and within the reach of any one who is handling children. I believe that Doctor Lamb's emphasis of the need of early treatment of subthyroid children is most essential. Too many cases which have been under observation for years are given consideration from an endocrine standpoint only when the symptoms become evident to the parents. I believe we must all keep more definitely before us the fact that many thin and undernourished children may be suffering from a thyroid deficiency. I am sure that very good observers pay little attention to thyroid deficiencies, except in overweight children, many of whom are of the thyropituitary deficiency type.

I believe that the basal metabolism test can be given to very young children if sufficient time and patience are devoted to the making of the test and the reading of the findings. Many children at seven or eight years of age submit very peacefully to the checking of the basal metabolic rate, and in this office we have tested some satisfactorily who are less than six years old.

As suggested in this paper, I believe it is very wise to start with small doses of thyroid, one-tenth to one-quarter grain, gradually increasing the dosage up to the point of tolerance. In addition to watching for obvious symptoms of thyroid overdosage, repeating of basal metabolic tests and rechecking with x-ray of the wrist bones, give us a fairly accurate method of controlling our treatment.

There is no doubt in my mind that many children with a low basal metabolic rate, who are considerably overweight, may be treated very satisfactorily by the use of restricted diets and increased exercise, without the use of thyroid. At least this method of treatment will definitely influence their weight. However, I believe that all of these cases should have careful checking of the bone age, as a mere loss of weight does not indicate that the underlying thyroid deficiency has been remedied.

I believe further emphasis should be placed on the fact that late or irregular dentition or extensive caries of teeth in children should be looked upon as a very possible evidence of thyroid disturbance. I feel sure that the average physician, as well as the dentist, rarely takes this into consideration. This brings us again to the occasionally emphasized fact that there should be a much closer relation between the dentist and those caring for children.

I thoroughly believe, with the author of this paper, that hypothyroidism is far more widespread in our pediatric practice than most of us appreciate. I think, therefore, that a routine check for this possibility is just as important as routine Mantoux or Schick tests.

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Helen Pryor, M. D. (659 Middlefield Road, Palo Alto). I was very much interested in Doctor Lamb's description of subthyroid children, because I believe that borderline hypothyroids constitute a neglected group.

In Doctor Lucas' private practice we have now done 2,300 basal metabolism tests on 889 children and feel that we can get reliable tests on children as young as five to six years. (We never accept a first basal, but always recheck.)

Approximately 17 per cent of the total number of children we classified hypothyroid. We found a significant age variation (the younger the child the higher the basal rate), so that any minus rate in a very young child is important.

We found also a body-build trend, with slender children averaging higher rates than broad ones. (This is true, age by age, and also regardless of age.)

Among 167 slender-built children there were both high rates and low rates, but the slender-built group as a group actually averaged plus 12.8 per cent.

The exact converse was true for ninety-four broad-built children, who actually averaged minus 15.2 per cent.

At the recent meeting of the American Pediatric Society in Cleveland, Dr. Fritz Talbot reported a similar finding when studying different weight groups. His children from weights 22 to 29 kilos averaged plus 5 per cent; 29 to 55 kilos averaged 0; 55 kilos and up averaged minus 10 per cent.

(Weight, of course, parallels body build, when height is held constant.)

Among our slender-built children who should have had high basals were a number who did have low basals (and these kept the average rate for the slender-built from going as high as it would have gone otherwise). I sorted out this group of little slender fellows (who should have had high rates, but who deviated in the unexpected direction), to look for any other factor which they might share in common, and found that 82 per cent of them were allergic. A number of this group showed improvement in their allergic symptoms on small doses of thyroid.

* * *

Henry E. Stafford, M. D. (242 Moss Avenue, Oakland).—Doctor Lamb's paper on the subthyroid child points the way to a better understanding of another borderline problem of childhood dealing with a midpoint between health and disease. As such, it is just as much a part of preventive medicine as the specific immunizing procedures in communicable diseases. He has emphasized the falseness of limiting our diagnosis of hypothyroidism to the classical picture of an obese, sluggish, and developmentally retarded individual. A poor state of nutrition often associated with mental alertness is commonly found in the subthyroid child. Such an individual gains weight with surprising rapidity when given adequate doses of thyroid.

Even though we assume that a certain number of children with insufficient thyroid secretion gain their glandular balance at the time of puberty (as has been suggested), there seems to be no logical reason for allowing an individual to pass through the most important formative years at a level below his or her optimum efficiency. Determination of bone age should be as much a part of a complete physical examination as a blood count or urine examination. This routine procedure, supplemented by adequate glandular therapy, has given us the solution of many problems which, previous to the last year, have of necessity been classed in our group of failure cases.

MENSTRUAL HYPOGLYCEMIA AND FUNCTIONAL DYSMENORRHEA: THEIR RELATIONSHIP[*]

By Milo K. Tedstrom, M.D.
and
Llewellyn E. Wilson, M.D.
Santa Ana

Discussion *by Harry J. Deuel, Jr., Ph.D., Los Angeles; Margaret Schulze, M. D., San Francisco; Emil Bogen, M. D., Olive View.*

In a previous paper [1] one of us suggested that functional dysmenorrhea, nervousness, weakness, and similar symptoms accompanying menstruation were in some cases associated with hypoglycemia. High carbohydrate feedings tended to relieve these symptoms. This report will give a more complete résumé of our blood-sugar studies during menstruation and the results of extra carbohydrate feedings for relief of functional dysmenorrhea.

HOW NORMAL BLOOD-SUGAR LEVEL IS MAINTAINED

Before discussing these blood-sugar studies, we shall briefly discuss the factors involved in maintaining a normal blood-sugar level.

Hepatic glycogen is generally recognized as the chief source of blood sugar. When food is being absorbed, the blood sugar is temporarily increased. The internal secretions of the ovaries, testes, and parathyroids act with insulin to reduce the blood sugar, while the secretions of the pituitary, thyroid, and adrenals tend to raise blood sugar. The interaction of these hormones may be controlled through a nervous center in the pons, according to MacLeod.[2]

Among the hormones elaborated by the anterior pituitary is the so-called diabetogenic hormone, which is antagonistic to insulin. This hormone apparently, according to experimental work of H. Lucke [3] and his associates, passes into the cerebrospinal fluid and then stimulates the sugar center in the medulla. This center in turn, via the sympathetic nervous system, stimulates the suprarenal glands. This results in liberation of epinephrin, which acts on the liver to cause a release of hepatic glycogen.

Barnes [4] and his associates have found that the injection of estrogenic substance decreases the glycosuria and hyperglycemia of experimental animals, and attributed this to a decrease in the secretion of the anterior pituitary gland. Elek [5] has reported that folliculin decreases the sensitivity to adrenalin and increases insulin hypoglycemia. He has noted opposite effects with prolan; that is, an increase in sensitivity to adrenalin, but no constant effect on insulin. Böhm,[6] however, has shown that prolan decreases insulin hypoglycemia.

Raab [7] and Elek [5] have said that the ovarian hormone decreases alimentary hyperglycemia. Raab [7] has reported an increase in the hepatic glycogen resulting from an increased glycogenesis due to the influence of this hormone, but Gulick [8] and his associates have observed, experimentally, in ovariectomized rats that administration of theelin results in a decrease in liver glycogen. Burger,[9] in 1930, described the so-called insulin hyperglycemia, which he interpreted as proving the liver contained glycogen. Kaufman and Mühlbock [10] found a marked decrease of this initial insulin hyperglycemia during menstruation, which they attributed to a decreased glycogen content of the liver.

A search of the literature reveals only occasional studies of the carbohydrate metabolism during the menstrual cycle, and the results are conflicting. Benthin [11] and Kahler,[20] the first to report studies of the blood sugar during menstruation, found only a slight increase of the fasting blood sugar and no rise was observed one hour after administration of 100 grams of dextrose. Okey and Robb[12] observed during menstruation an increased tolerance for glucose which they attributed to an alter-

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[*] From the Orange County General Hospital, Orange, and St. Joseph's Hospital, Orange.

Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

Chart 1.—*Sugar Tolerance Curves*

GROUP A. No, or Slight Dysmenorrhea. No Treatment.

Case No.		Fasting	½ hr.	1 hr.	2 hrs.	3 hrs.	4 hrs.	5 hrs.	6 hrs.	Menstrual Symptoms
1	Menstrual	.095	.163	.100	.114	.103	.108	.095	......	Menorrhagia
	Intermenstrual	.129	.203	.132	.095	.080	.095	.095	......	
2	Menstrual	.083	.111	.111	.074	.072	.058	.050	.074	Occasional slight pain.
	Intermenstrual	.086	.125	.069	.080	.069	.105	.102	.084	
3	Menstrual	.085	.157	.105	.100	.071	.062	.068	.086	Occasional slight pain.
	Intermenstrual	.090	.137	.149	.052	.057	.091	.109	.108	
4	Menstrual	.085	.111	.045	.066	.068	.068	.060	......	Occasional slight pain.
	Intermenstrual	.084	.149	.133	.050	.074	.069	.073	.086	
5	Menstrual	.080	.146	......	.100	......	.084	.078	.080	No pain Reg. periods
	Intermenstrual	.100	.146	......	.153	.129	.125	.091	.074	
6	Menstrual	.091	.180	.220	.118	.095	.069	.050	......	Menorrhagia
	Intermenstrual	.085	.175	.110	.064	.080	.089	.089	......	
7	Menstrual	.095	.163	.100	.114	.108	.118	.095	......	No symptoms
	Intermenstrual	.129	.200	.172	.103	.072	.095	.095	......	
8	Menstrual	.100	.153	.190	.160	.131	.100	......	......	No symptoms
	Intermenstrual	.110	.145	.125	.110	.110	.110	.110	.105	
Menstrual average		.089	.148	.111	.105	.092	.083	.071	.076	
Intermenstrual average		.101	.160	.127	.089	.083	.097	.098	.091	

ıtion in pancreatic response. Frey,[13] on the other hand, found a decreased tolerance. Hoffman,[14] in 1914, studied the intermenstrual and menstrual response to galactose and levulose feeding and reported an increased tolerance during the menses. Franke [15] also found an increased tolerance to galactose, but Rowe and McGuiness [16] reported a decreased tolerance. Hoffman [14] observed an increased tolerance for fructose, and Heilig [17] a decreased tolerance for saccharose.

Pucher [18] and his associates have observed the fasting blood sugar of two women at weekly intervals for one year. Both showed a sharp premenstrual rise to well above the menstrual level, followed by a fall to the lowest sugar level during the third week after menstruation. They concluded that the cyclic variation in blood-sugar level must still be regarded as uncertain. Okey and Robb,[12] who have also made studies of the fasting blood-sugar, concluded that it is impossible to state positively that there is a uniform and constant variation in the fasting level of blood sugar at any one phase of the monthly cycle in women. However, they found the average menstrual value was higher than the average intermenstrual value. They also found higher or lower sugar levels during menstruation than at any other time during the cycle. Heilig [17] and Bloch and Bergel [19] also observed that the blood sugar decreased as the flow lessened, and was lowest in the interval between periods. Kahler,[20] using the Bang method of blood sugar determination, found similar results. In seven out of a series of ten cases, Kaufman and Mühlbock [10] found a menstrual increase in the fasting blood sugar. It has been very commonly observed that diabetic women usually have a higher blood-sugar level and glycosuria during menstruation than at other times during the monthly cycle. However, in view of the conflicting sugar studies, it would seem probable that some female diabetics would experience a lowering of the blood-sugar level at menstruation. That this does occur is shown by our observation of a patient requiring daily injections of insulin, who has to reduce her dose of insulin during menstruation because of reactions.

Glucose tolerance studies have been made by us on thirty-eight women about midway between and on the first or second day of menstruation. The test-meal consisted of 100 grams of glucose. In this series there was an increase in the glucose tolerance during menstruation in the majority of the patients studied. The fasting blood sugar was lower during menstruation than during the midmenstrual period in about 80 per cent of the cases although the difference was frequently very slight.

AUTHORS' GROUPING OF CASES

Our cases have been separated into three groups. Group "A" is composed of those patients having no, or very slight, dysmenorrhea; Group "B" is composed of those patients having menstrual distress and relieved by extra carbohydrate feedings; Group "C" is composed of those patients with dysmenorrhea, but not relieved with oral carbohydrate feedings or intravenous glucose. The average menstrual fasting blood sugar is lower than the average intermenstrual value in Groups "A" and "B," but higher in Group "C." The average menstrual and intermenstrual tolerance curves of Groups "A" and "C" are very similar and in striking contrast to those of Group "B," the average menstrual and intermenstrual curve of Group "B" being much lower.

MENSTRUAL PAINS

In every case in which the fasting blood sugar was low, that is, below 80 milligrams per 100 cubic centimeters, the individual had either menstrual pains of varying severity or complained of marked nervousness, irritability, weakness, extreme hunger, or excessive desire for sweets two or three days preceding onset of flow. The women studied by Okey and Robb [12] often complained of extreme hunger at this time. Every patient

CHART 2.—*Sugar Tolerance Curves*

GROUP B. Dysmenorrhea or Weakness. Complete or Partial Relief.

Case No.		Fasting	½ hr.	1 hr.	2 hrs.	3 hrs.	4 hrs.	5 hrs.	6 hrs.	Menstrual Symptoms	Result of Carbohydrate Feedings
9	Menstrual	.076	......	.083	.093	.084	.064	.080	.071	Severe pain. Nervous marked.	Relief with intravenous glucose temporary. Slight relief.
	Intermenstrual	.086	.181	.190	.105	.181	......	.151	.118		
10	Menstrual	.090	.180	.220	.118	.095	.064	.050	......	Weakness and metrorrhagia marked.	Relief of weakness.
	Intermenstrual	.084	.200	.110	.054	.080	.089	.089	......		
11	Menstrual	.042	.074	.154	......	.112	.117	.105	.073	Severe pain. Very nervous; has to go to bed.	Complete relief. Mid-menstrual pain once relieved with oral CaH.
	Intermenstrual	.090	......	.105	......	.090	.083	.084	......		
12	Menstrual	.071	.076	.066	.066	.076	.076	.083	.083	Considerable pain.	Complete relief.
	Intermenstrual	.093	.105	.066	.076	.073	.086	.074	.086		
13	Menstrual	.080	.083	.064	.090	.071	.075	.085	.090	Severe pain. Has to go to bed.	Complete relief.
	Intermenstrual	.076	.066	.070	.080	.050	.076	.050	.066		
14	Menstrual	.087	.085	.083	.081	.069	.093	.090	.071	Severe pain at times and has to go to bed.	Complete relief.
	Intermenstrual	.086	.077	.073	.078	.083	.071	.050	.086		
15	Menstrual	.081	.142	.125	.085	.090	.066	.081	.086	Severe pain. Has to go to bed.	Complete relief.
	Intermenstrual	.086	.154	.133	.114	.100	.070	.095	.100		
16	Menstrual	.090	.130	.060	.072	.083	.095	.091	.095	Severe cramps.	Relief complete, also intravenous glucose with relief.
	Intermenstrual	.095	.100	.091	.091	.061	.078	.091	......		
17	Menstrual	.063	.180	.100	.071	.062	.070	.064	......	Pain and nervous.	Complete relief.
	Intermenstrual	.099	.150	.120	.100	.087	.071	.088	......		
18	Menstrual	.060	.080	.110	.094	.072	.061	.060	.077	Pain, nervous, weak, petitmal epilepsy.	Complete relief.
	Intermenstrual	.084	.120	.154	.128	.105	.073	.088	......		
19	Menstrual	.062	.084	.090	.088	.064	.056	.080	.078	Severe pain. Weakness, has to have morphine.	Complete relief.
	Intermenstrual	.080	.112	.118	.106	.095	.078	.084	.082		
20	Menstrual	.111	.200	.166	.117	.121	.087	.087	.109	Irregular menstruation, mild pain before, severe since poliomyelitis.	Complete relief.
	Intermenstrual	.095	.129	.091	.095	.069	.075	.091	......		
21	Menstrual	.085	.091	.091	.080	.080	.045	.066	......	Severe pain.	Complete relief.
	Intermenstrual	.104	.217	.227	.147	.111	.111	.085	......		
22	Menstrual	.083	.111	.073	.088	.069	.080	.079	.078	Severe cramps with some periods.	Relieved with intravenous glucose. No oral feedings.
	Intermenstrual	.087	.133	.111	.087	.064	.077	.077	......		
23	Menstrual	.105	.169	.195	.154	.080	.088	.088	......	Always some cramps, more severe since poliomyelitis.	Considerable relief.
	Intermenstrual	.117	......	.120	.133	.087	.105	.117	.105		
24	Menstrual	.118	.124	.066	.062	.087	.087	.100	.108	Severe pain.	Complete relief, also intravenous glucose with relief.
	Intermenstrual	.133	.105	.077	.080	.100	.111	.125	.123		
25	Menstrual	.102	.114	.095	.117	.102	.088	.093	......	Severe pain. Worse since poliomyelitis.	Glucose intravenously with relief. Partial relief with oral feedings.
	Intermenstrual	.102	.130	.123	.121	.125	.100	.090	.093		
26	Menstrual	.064	.085	.090	.074	.065	.060	.070	.074	Severe pain.	Complete relief.
	Intermenstrual	.090	.120	.180	.135	.124	.100	.084	.090		
27	Menstrual	.088	.130	.071	.049	.047	.035	......	......	Severe menstrual pain.	Considerable relief.
	Intermenstrual	.088	.109	.114	.121	.133	.148	.104	......		
28	Menstrual	.070	.090	.100	.074	.070	.063	......	......	Headaches, weakness and nervousness.	Complete relief.
	Intermenstrual	.103	.131	.109	.108	.086	.066	......	......		
29	Menstrual	.080	.125	.086	.078	.066	.067	.074	.083	Severe pain occasionally.	Complete relief.
	Intermenstrual	.090	.166	.105	.125	.090	.100	.119	.106		
30	Menstrual	.103	.111	.075	.100	.083	.102	.117	.105	Severe pain. Has to go to bed.	Complete relief.
	Intermenstrual	.105	.154	.071	.112	.117	.080	.085	.086		
31	Menstrual	.061	.086	.068	.055	.076	.076	.083	.083	Considerable pain.	Complete relief.
	Intermenstrual	.069	.080	.062	.076	.073	.086	.074	.086		
32	Menstrual	.087	.083	.096	.080	.087	.066	.071	.074	Considerable pain.	Complete relief.
	Intermenstrual	.090	.089	.104	.092	.067	.079	......	.078		
33	Menstrual	.086	.095	.069	......	.066	.066	.066	.050	Considerable pain.	Complete relief.
	Intermenstrual	.062	.095	.100	.076	.100	.080	.100	.100		
Menstrual average		.082	.106	.076	.084	.072	.076	.080	.078		
Intermenstrual average		.093	.126	.110	.109	.106	.092	.095	.093		

CHART 3.—*Sugar Tolerance Curves*

GROUP C. Dysmenorrhea or Weakness. No Relief.

Case No.	Fasting	½ hr.	1 hr.	2 hrs.	3 hrs.	4 hrs.	5 hrs.	6 hrs.	Menstrual Symptoms	Result of Carbohydrate Feedings
34 Menstrual	.118	.118	.133	.091	.123	.133	.118	......	Moderate pain	No relief
Intermenstrual	.078	.182	.230	.123	.090	.080	.080	.078		
35 Menstrual	.118	.220	.154	.116	.072	.100	.128	.128	Severe pain	No relief with intravenous glucose or oral feedings
Intermenstrual	.107	.133	.085	.085	.070	.084	.105	.106		
36 Menstrual	.091	.143	.154	.115	.085	.060	.090	.090	Severe pain	No relief
Intermenstrual	.100	.166	.111	.087	.080	.091	......	......		
37 Menstrual	.075	.106	.181	.083	.090	.060	.066	.073	Severe pain Nervousness	No relief
Intermenstrual	.109	.166	.200	.166	.119	.115	.114	.102		
38 Menstrual	.088	.160	.174	.125	.102	.090	.092	.096	Severe pain	No relief
Intermenstrual	.094	.180	.192	.130	.106	.094	.090	.093		
Menstrual average	.098	.150	.159	.105	.094	.088	.100	.097		
Intermenstrual average	.083	.165	.163	.118	.093	.092	.097	.095		

with a low fasting blood sugar, except No. 37, obtained at least partial relief of symptoms by measures designed to elevate the blood sugar. An explanation of this apparent association of hypoglycemia and functional dysmenorrhea is found when we review the work of several investigators.

Novak [21] has said that the character of the pain in primary dysmenorrhea suggests as the immediate cause a painful exaggerated contractility of the uterine musculature. He and Reynolds [22, 23] have shown that folliculin produces uterine contractions while progestin [21, 24] inhibits these contractions in both the pregravid and gravid states. Kelly and Florence [25] and Papanicolaou [26] have also stated that the hormone of the corpus luteum inhibits the estrogenic hormone. Leonard, Meyer, and Hisaw [27] have demonstrated that injections of theelin inhibit pituitary function with consequent atrophy and sclerosis of the ovaries. Frank [28] has shown that the estrin content of the blood is greatest just before corpus luteum breakdown and onset of menstruation. Thus the inhibitory effect of estrin on the anterior pituitary gland probably results in the degeneration of the corpus luteum. In the typical case of functional dysmenorrhea, the pain begins a day or two before the onset of the flow, which is the time the corpus luteum begins to degenerate with resultant decrease in the secretion of progestin. This decrease in corpus luteum secretion results in onset of uterine contractions. Knauss [29] has shown that this is the period of maximum uterine contractility in menstruating women, and the estrin content of the blood is also greatest at this time. Meyer and his associates [30] and Moore [31] have shown that an excess of folliculin inhibits the gonadotropic function of the anterior pituitary gland, which in turn decreases folliculin secretion by the ovaries. This probably accounts for the onset of bleeding and relief of pain after one or two days. The above sequence of events presumably occurs in all women, yet the heightened contractility of the uterus at this period is not always productive of pain. Okey and Robb [12] say that 60 to 75 per cent of all civilized women have more or less menstrual pain and incapacitation for work. Certain women, of course, are more sensitive to pain than others, and psychogenic, constitutional, or other factors undoubtedly predispose to more discomfort.

Thus it seems quite probable that an excess of estrin, together with a decreased amount of progestin, may produce the so-called "premenstrual tension" of Frank [28] and the pain of functional dysmenorrhea. An excess of estrin can apparently also result in the hypoglycemia we have observed in some cases of functional dysmenorrhea, as Nelson and Overholser [32] have stated that injections of theelin reduce the hyperglycemia and glycosuria of experimental diabetes. They attributed this to an inhibition of the diabetogenic hormone of the anterior pituitary gland.

This balance between secretion of progestin and theelin and the resultant effect on the anterior hypophysis apparently explains the conflicting reports as to blood-sugar studies during menstruation. It seems quite probable that the normal endocrine balance would result in an increased blood sugar just before and during menstruation. Frey [13] and Heilig [17] have also shown that uterine contracture tends to elevate the blood sugar, and Bloch and Bergel [19] have stated that there is an increased thyroid activity at this time which would tend to increase the blood sugar.

The treatment of our patients with functional dysmenorrhea associated with a low fasting blood sugar or a low sugar curve during menstruation, consisted of extra carbohydrate feedings beginning about three days before onset of menses and continuing through the first three days of the period. It was observed that better results were obtained if the extra feedings were taken at two- or three-hour intervals during the day rather than larger amounts at longer intervals. Orange juice was the usual form of carbohydrate taken. Karo syrup, glucose, cane sugar, etc., all worked equally well. However, one case was observed to get no relief with honey, but did with Karo syrup or orange juice. These extra carbohydrate feedings have relieved the premenstrual tension as nervousness, excitability, etc., and the menstrual pain in about 80 per cent of the cases in which they have been tried.

Eight patients have been given 25 cubic centimeters of 50 per cent glucose intravenously with immediate relief of menstrual pain. This relief is very dramatic, occurring before completion of the injection. If the pain returns, it is usually slight and easily controlled by extra carbohydrate feedings. On two occasions a second injection of glucose was given about an hour after the initial injection because of return of pain. This second injection resulted in complete relief in one patient, but not in the other.

Since relief of the menstrual discomfort was also obtained by several patients with a normal blood sugar, it seems wise to try this form of therapy on every case of functional dysmenorrhea. Even though these patients do not get complete relief of their pain, they seem to feel much better with the feedings than without them. When relief was obtained they were advised to take carbohydrate feedings throughout the remainder of the period. There was slight return of the menstrual pain in a few instances. Two patients who were having cramps and slight flow midway between periods were relieved. One was relieved by oral carbohydrate feedings and the other by an intravenous injection of glucose. The blood sugar of the latter was 60 milligrams per cent before glucose was injected.

REPORT OF CASES

CASE 1 (11).—Female, age thirty. Menstrual history: Onset of menses was at the age of fifteen. Menstruation is regular, occurring every twenty-eight days. Duration is six days. A few hours before onset of flow she has very severe pain. This pain continues through the first day of the flow, when it decreases. On the second day she has considerable lumbosacral backache. During menses she feels very nervous, weak, shaky, irritable, and chilly. Extra carbohydrate feedings have given complete relief.

CASE 2 (14). — Female, age twenty-six. Menstrual history: Onset of menses was at the age of eleven. Menstruation is regular, occurring every twenty-eight days. Duration is four to five days. During the past two years she has had dysmenorrhea of such severity that she usually has to spend one day in bed. Flow is normal. Extra carbohydrate feedings have been used, with complete relief of pain.

CASE 3 (16).—Female, age twenty-two. Menstrual history: The onset of menses was at the age of fifteen. Menstruation is regular, occurring every twenty-six to thirty days. Duration is five days. She has severe abdominal cramps and considerable pain in thighs throughout period. These pains are most marked on fifth day of flow. During one period she was given 50 cubic centimeters of 50 per cent glucose intravenously, with immediate relief of pain. The next morning she had some return of cramps, but they were controlled with increased carbohydrate feedings. Extra carbohydrate feedings have resulted in complete relief of menstrual discomfort.

CASE 4 (21).—Female, age thirty-four. Menstrual history: Onset of menses was at the age of thirteen. Menstruation is regular, occurring every twenty-eight days. Duration is three to four days. There is considerable dysmenorrhea and pelvic distress. Extra carbohydrate feedings have given complete relief.

CONCLUSIONS

1. There does not seem to be any uniform variation in the fasting blood sugar at menstruation as compared with the mid-menstrual blood sugar. However, about 80 per cent of our series showed a lower blood sugar during menstruation. There is usually an increased tolerance for glucose during menstruation.

2. Patients having functional dysmenorrhea associated with a low fasting blood sugar at menstruation can be frequently relieved with extra carbohydrate feedings. Intravenous glucose relieves the menstrual pain in these patients at once. Occasionally a second injection of glucose is necessary. If a patient with functional dysmenorrhea has a normal or elevated fasting blood sugar, the extra carbohydrate feedings should be tried, as some of these patients will obtain relief.

218 South Main Street.

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DISCUSSION

Harry J. Deuel, Jr., Ph.D. (University of Southern California, Los Angeles).—Although the pancreas unquestionably is the chief endocrine gland regulating carbohydrate metabolism, the indirect effect of such other glands as the ovaries also must be considered. Doctor Tedstrom's results, in which he has demonstrated an unusually low value for fasting blood-sugar levels in a number of cases of dysmenorrhea, indicate again their importance in carbohydrate metabolism. The readier susceptibility of women, as compared with men, to fasting ketosis suggests that the store of available glycogen is much less ample in the female.

Griesheimer (*American Journal of Physiology*, 109:45 (1934)), demonstrated that the blood sugar of normal women, after a thirty-six and a sixty-hour fast, had dropped from a normal level of 84 milligrams to 66 and 58½ milligrams, respectively. On the other hand, the blood sugars of male subjects taken at the same intervals were 86 (normal), 74 (thirty hours), and 64½ (sixty hours). The readier availability of carbohydrate in the male has also been noted in our laboratory, where it was found that the liver glycogen in fasting rats fed definite amounts of glucose was invariably higher, even after seventy-two hours of fasting, in the male animals than in the female. Following ovariectomy, the liver glycogen values obtained were significantly higher than on normal females, and even slightly exceeded those of normal males. That theilin was probably responsible for this variability was shown by the fact that the level of glycogen in ovariectomized rats was significantly reduced on the administration of theilin. In other experiments, we have shown that the ketonuria which develops in fasting rats, fed sodium aceto-acetate, is in inverse ratio to their glycogen content during fasting. The largest percentage of diacetic acid was oxidized and the lowest ketonuria was noted in castrated female rats. The extent of the ketonuria which developed under similar circumstances was somewhat higher in normal male rats, and considerably greater in the normal females.

However, we were unable to alter the ketonuria in castrated rats with theilin. This fact leads us to question whether theilin is the hormone in the ovary responsible for the alteration in carbohydrate metabolism. It seems probable that the hormone which causes the low liver glycogen also should bring about a greater development of ketosis. Because of the lower liver glycogen, a condition of hypoglycemia, as noted by Doctor Tedstrom, should obtain.

Because of our negative results on our ketosis experiments with theilin, we think that possibly the hormone in question may be progestin, and have suggested that its action on carbohydrate metabolism is not a direct, but an indirect one through the pituitary gland.

⁂

Margaret Schulze, M. D. (University of California Medical School, San Francisco).—This paper is an interesting contribution to our knowledge of a condition whose therapeusis is still admittedly most unsatisfactory. The effect of estrin and progestin upon uterine contractibility has been fairly definitely established in both animal and human experiments, and the theory that essential dysmenorrhea depends upon an imbalance between them, resulting in excessive and painful contractions seems logical. It is possible that this imbalance may exert its effect through its influence upon carbohydrate metabolism. The dramatic relief of pain by intravenous glucose suggests a direct effect upon the uterine contractibility, probably analogous to the effect of the blood-sugar level upon the hunger contractions of the stomach, which was demonstrated by Carlson. It would be most interesting to try this out experimentally.

The simplicity of the method has much to recommend it in practice, since endocrine therapy is so often disappointing in its results, and in many instances prohibitively expensive. The method seems worthy of trial in all cases of dysmenorrhea not dependent upon organic lesions, and should certainly be used before resort to any type of surgery in the functional cases.

⁂

Emil Bogen, M. D. (Olive View Sanitarium, Olive View).—The discovery that low levels of blood sugar, in both humans and animals, may give rise either to general skeletal muscle contractions, as in the convulsions of hyperinsulinism described by Harris and his followers, or to contractions of the smooth muscle of the stomach, or to hunger pains, as observed by Carlson, suggests that perhaps similar phenomena may occur in the smooth muscle of the uterus, and possibly thereby initiate or aggravate some of the symptoms accompanying the menstrual period. The psychic phenomena accompanying hypoglycemia may also, in some respects, resemble those accompanying dysmenorrhea. Such analogies, however, may be very misleading. Recent studies of Doctor Ziskind have shown that a large group of known epileptics not only had normal blood-sugar readings under ordinary conditions, but that the frequency of convulsions in this group could not be increased by the administration of doses of insulin resulting in considerable depressions of the blood sugar. Doctors Tedstrom and Wilson are to be thanked for having painstakingly accumulated and presented the data necessary for a similar evaluation of the rôle of hypoglycemia in dysmenorrhea.

As has been previously observed, the fasting blood sugar during the menstrual period is not consistently lower than that at other times. More observations, in the same and successive cycles, are required to show whether the lower figure found in the majority of the cases here reported represent a significant and persistent finding. Moreover, most of these values fall well within the range of normal variation. Case 11 is the only one which had a sufficiently low fasting blood sugar during the menstrual period to be considered distinctly pathologic and a probable cause of symptoms, although this might be suspected in a number of others with blood-sugar readings of 0.06 to 0.08 per cent. It is dubious whether the others may be spoken of as hypoglycemic, even though, in many instances, they were accompanied by symptoms that were relieved by the administration of carbohydrate.

The laborious sugar-tolerance curves here reported also fail to show any significant differences between the pancreatic function in the menstrual and intermenstrual periods. (The menstrual average of 0.076 recorded for the one-hour period in Group B on the proof is apparently an error, as the figures given actually average 100.) Delay in absorption of the sugar may be suspected in a number of cases where the half-hour reading showed little or no rise, rather than excessive pancreatic function. The group of women whose symptoms were relieved by administration of carbohydrate, however, in general showed a greater sugar tolerance, both during the menstrual and the intermenstrual periods, than those with no symptoms or those whose symptoms were unrelieved. More and repeated observations are required to determine whether this finding may be generally confirmed, and what may be its significance.

The administration of carbohydrate, even orally, may have other effects than merely the raising of the blood sugar. Even though the blood-sugar level is normal, raising it to abnormally high levels may relieve symptoms due to other causes, as in the treatment of increased intracranial pressure. But the psychic concomitants of the therapy, as well as the other physiologic effects of ingestion and injection may not be disregarded. Investigation of the possibility that the administration of insulin might initiate or aggravate menstrual discomfort in these patients would appear to be one aid in the unraveling of this problem. The writers are to be congratulated on the work they have done, and the desirable results empirically observed; and it is to be hoped that they will continue to investigate the mechanism of this therapy, and so establish more precisely its indications and limitations.

HEART DISEASE IN PHYSICIANS*

By Robert T. Langley, M.D.
Los Angeles

Discussion *by Eugene S. Kilgore, M. D., San Francisco; Willard J. Stone, M. D., Pasadena.*

THIS paper presents a statistical survey of the histories of 165 physicians who sought advice as to the presence of heart disease. It is interesting to note that diseases of the heart lead all other causes of death in physicians. These facts are significant: that the death rate in physicians increased from its lowest period in 1903, when it was 13.72 per 1,000, to a rate of 17.95 per 1,000 in the year 1923 (Emerson, H., and Hughes, H., Am. J. Pub. Health, November, 1926); that the average of death for physicians has gradually increased from 62.8 years in 1927 to 63.7 in 1930; that heart disease in physicians has been on the increase each year. Death from embolism and thrombosis have more than doubled in the five-year period reported by Hoffman between the years 1927-1932. Deaths from arteriosclerosis show a marked increase from 98 cases in 1926 to 190 in 1930. Results obtained concerning their health does not compare favorably with statistics concerning the general white male population as a whole. The study of "Deaths by Occupations in the United States in 1930," published by Whitney, shows that in the age group 15-65, the physicians had a higher total death rate than any other profession, and than any other sedentary occupation except café-keepers, blacksmiths, and tailors, and that their heart disease rate was higher than that of any other occupation except tailors, watchmen and doorkeepers. In as much as few men take up medicine because of heart trouble or poor health, and many do enter the other vocations named above for this reason, this certainly indicates a heart hazard in our profession. Causes for such a pronounced trend toward organic heart disease in physicians seem apparent. His régime is a strenuous one. His hours for eating and sleeping are irregular. His periods of relaxation are few, short and interrupted. He is exposed constantly to the rigors of changing conditions of weather. He is emotionally influenced by the condition of critically ill patients. Worry, anxiety and sympathy subconsciously assail him, since he is ever faced with the serious responsibilities and problems of life, death and suffering. Time for study and attendance at meetings crowd his busy life, if he is to keep pace with advances in his profession. He is seldom financially comfortable. His limited income, coupled with a demand for an acceptable personal appearance, efficient transportation, office overhead and scientific equipment, present a source of unavoidable concern. Then, too, he is ever in an environment of infection, and tends to ignore minor ills. Along with the factor of irregular meals there is the tendency

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* Read before the General Medicine Section of the California Medical Association, at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

TABLE 1.—*General Classification*

165 Patients	
Oldest	77 years
Youngest	25 years
Average age	50 years

Age in Decades	Cases	Per Cent
Third	2	1.2
Fourth	27	16.3
Fifth	41	24.8
Sixth	57	34.5
Seventh	30	18.1
Eighth	8	4.8
Overweight	51	31
Use of alcohol	86	52.4
Use of tobacco	124	75.5

	Systolic	Diastolic
Maximum blood pressure	240	140
Minimum blood pressure	90	60
Average blood pressure	140	88

		Per Cent
Known living	132	79.8
Known dead	23	14.2
Unaccounted for	10	6.0

toward overeating and underexercising, with consequent obesity.

All these factors are unique in the life of a physician and conduce to drive him to the point of physical breakdown.

DISCUSSION OF TABLES

Tables 1 and 2 show in general the scope of this study. In the analysis of the diagnoses it is seen that most of the cases fell into the classification of degenerative cardiovascular disease. Of the entire group of conditions diagnosed, 75 per cent were found to be due to organic heart disease. Over 50 per cent of those examined were consumers of alcohol, and about 75 per cent used tobacco. The mortality of the group was 14.2 per cent for the period under observation, that is for periods varying from one to ten years.

Hypertension Group.—The hypertension group represents the largest number of organic diagnoses, or 21.9 per cent. In this series the largest number of cases fell in the sixth decade, and the period of observation from less than one year to over seven years. While there were no characteristic symptoms, it was found that over 50 per cent complained of distress which could be classified as heart pain. The next most notable finding was that of palpitation. The duration of symptoms in the majority of patients was from one to two years, while several were conscious of symptoms for ten years, or more. The mortality for this group was 11.1 per cent. A further fact of interest is that by far the greatest number of patients were conscious of symptoms for from one to two years only before coming for an examination. Several, however, had known hypertension for over ten years, and one for twenty years.

TABLE 2.—*Analysis of Diagnoses*

	Cases	Per Cent
Hypertension	36	21.9
Angina pectoris	10	7.3
Coronary sclerosis	25	15.2
Coronary thrombosis	12	7.9
Congestive heart failure	12	7.9
Normal heart	33	21.4
Cardiac neurosis	16	9.6
Irregular heart	20	14.6
Bundle branch block	7	4.2
Complete heart block	1	0.6
Incomplete heart block	1	0.6
Rheumatic heart disease	4	2.5
Thyroid heart disease	1	0.6

Number conditions diagnosed	178
Organic diagnoses	109
Functional diagnoses	69

TABLE 3.—*Age in Relation to Disease Groups*

	Oldest	Youngest	Average Age
Hypertension	76	32	57
Angina pectoris	63	42	57.8
Coronary sclerosis	70	32	53.6
Coronary thrombosis	63	47	56.5
Congest. hrt. failure	72	35	55
Normal heart	72	35	45.5
Cardiac neurosis	65	30	48
Irregular heart	76	35	55
Heart block	62	29	51
Rheumatic hrt. dis.	49	25	35

Coronary Thrombosis Group.—In the coronary thrombosis group four deaths occurred under one year. Two lived more than one year, and one lived two and one-half years. Those with a constant low systolic blood pressure and low pulse pressure had the poorest outlook, and conversely those with a normal pressure had a better outlook. Overweight was not a factor in these patients. Sudden deaths occurred in four instances, of which two were known to be due to coronary thrombosis, as proved by autopsy. Of the remaining deaths one must be classified as unknown and the remaining two died of congestive heart failure. The period of actual symptoms was found to be short for the whole group, those with prolonged symptoms living the shortest period. When recovery occurred the clinical and laboratory examinations were found to be practically normal after the first few months, particularly from the standpoint of blood pressure and pulse rate. Changing electrocardiographic records, for example, the restoration of *T* waves to normal, did not necessarily indicate a favorable prognosis.

TABLE 4.—*Disease Groups in Relation to Alcohol, Tobacco and Overweight*

	Per cent		
	Alcohol	Tobacco	Overweight
Hypertension	55.5	75	55.5
Angina pectoris	30	60	30
Coronary sclerosis	56	88	44
Coronary thrombosis	50	75	33.3
Congest. hrt. failure	33	75	8.3
Normal heart	60.6	63.6	21.2
Cardiac neurosis	40	73.3	26.6
Irregular heart	55	55	10
Heart block	22.2	33.3	33.3
Rheumatic hrt. dis.	25	100	75

Table 5.—*Period Under Observation*

	Per cent						
	1 year or less	1 to 2 years	2 to 3 years	3 to 5 years	5 to 7 years	7 to 9 years	10 years or more
Hypertension	8.3	30.4	27.7	19	8.2	5.5	....
Angina pectoris	20	20	10	30	10	10	....
Coronary sclerosis	12	8	16	36	12	16	....
Coronary thrombosis	33.3	16.6	16.6	16.6	8.3	8.3	....
Congestive heart failure	8.3	16.6	....	33.2	....	....	41.5
Normal heart	3	18.2	15.1	21.2	30.3	9	3
Cardiac neurosis	3.6	13.3	33.3	6.6	13.2	26.6	....
Irregular heart	20	20	30	5	15	10	....
Heart block	22	22	11	22	....	....	22
Rheumatic heart disease	....	....	25	....	25	50	....

Group Having No Heart Symptoms.—Twenty-five patients presented themselves for examination either with or without heart symptoms. These individuals had electrocardiographic changes which indicated coronary sclerosis. In comparison with the coronary thrombosis group, it was seen that these patients were under observation a much longer period of time; 36 per cent for from three to five years. The duration of symptoms here was from three to five years in 40 per cent, an improvement over that for the coronary thrombosis group. In this group, 20 per cent did not complain of heart pain. The mortality rate was only 8 per cent for the period under observation.

Angina Pectoris Group.—Ten patients had a clinical history of angina pectoris, and could for the most part have been included under the previous group except for the electrocardiographic records which failed to show any abnormality which would point to coronary disease. The outstanding complaint here, of course, was heart pain.

Congestive Heart Failure Group.—Twelve patients complained of the symptoms of congestive heart failure. It is interesting to note that several of this group were conscious of symptoms for ten years, and one for thirty years. One-third were dead at the time of making this study, and of these, all but one died a cardiac death.

Heart Block Group.—Those patients whose electrocardiographic records gave evidence of heart block were studied in one group. Of these there were seven cases of bundle branch block, and one each of complete and incomplete heart block. These patients without exception complained of symptoms referable to the heart. The most outstanding and interesting fact about these individuals is that of the nine under observation, for periods varying from less than one year to eight years, seven are living and only two are dead. Of the seven living, two have been under observation for from seven to eight years.

Rheumatic Heart Disease Group.—Only four patients make up the rheumatic heart disease group. As usual, these individuals are found to be long sufferers. None have died and the period of observation has been from two to eight years. Only one patient had a diagnosis of thyroid heart disease, and he is living and well, following thyroidectomy and after four years' observation.

Health Examination Group.—Thirty-three patients came to the office in order to determine the presence of heart disease and sometimes in the course of a periodic health examination. These, of course, must be separated from the group to be listed under the heading of cardiac neurosis. This normal group, so-called, frequently complained of precordial distress and many were at times heart-conscious.

Cardiac Neurosis Group.—Cardiac neurosis is represented by fifteen patients who were under observation from one to nine years. Of the symptoms, the majority complained of heart pain. Many were found to be annoyed by palpitation and weakness. It is of interest to note that the duration of symptoms in most cases was a short period. This would indicate that these individuals, being heart-conscious, lost no time in coming for examination, probably because of apprehension which usually accompanies cardiac neurosis. The

Table 6.—*Symptoms*

		Per cent				
	No. Cases	Precordial Distress	Palpitation	Irregular Heart	Tachycardia	Dyspnea
Hypertension	36	54.5	45.4	23.3	18.2	21.2
Angina Pectoris	10	100	20	20	16	50
Coronary sclerosis	25	80	64	36	....	44
Coronary thrombosis	12	100	....	....	....	25
Congestive heart failure	12	58.3	83.3	50	58.3	83.3
Normal heart	33	54.5	45.4	23.3	18.2	21.2
Cardiac neurosis	16	60	46.6	33.3	13.3	22.6
Irregular heart	20	60	70	33	....	45
Heart block	9	88	44	....	22	44
Rheumatic heart disease	4	25	50	25	....	75

Table 7.—*Mortality Table*

	No. Cases	Deaths	Per Cent
Hypertension	36	4	11.1
Angina pectoris	10	2	20
Coronary sclerosis	25	2	8
Coronary thrombosis	12	6	50
Congestive heart failure	12	4	33.3
Normal heart	33	1	3.03
Cardiac neurosis	16	0	0
Irregular heart	20	2	10
Heart block	9	2	22
		23	

mortality here was negligible; the only death being noncardiac.

Irregular Heart Action Group.—Irregular heart action was present in twenty patients. There is nothing outstanding in this group. Of the twenty cases there have been two deaths. Both died a cardiac death.

It is interesting to note that these tables show no diagnoses of syphilitic heart disease. The reasons for this are not entirely clear, and certainly if all patients in this series could be examined postmortem, evidence of syphilis undoubtedly would be found present.

RELATIONSHIP TO AGE

The age incidence table shows that 93 per cent of the patients with hypertension were evenly distributed over the fourth, fifth, and sixth decades, while rheumatic heart disease patients are seen only in the third, fourth and fifth decades. Angina pectoris is seen for the most part in the fifth, sixth and seventh decades. Some 60 per cent fell in the seventh decade. In the coronary thrombosis group, 75 per cent were found to fall in the sixth and seventh decades. Coronary sclerosis shows its appearance somewhat earlier, in that it is seen from the fourth to eighth decades—the majority of cases appearing in the sixth and seventh decades. In the congestive heart failure group, the majority of the cases—58 per cent—appeared in the sixth and seventh decades.

The tables submitted are obviously incomplete in many ways. Some interesting information has been presented, however, which is of value in a comparative way.

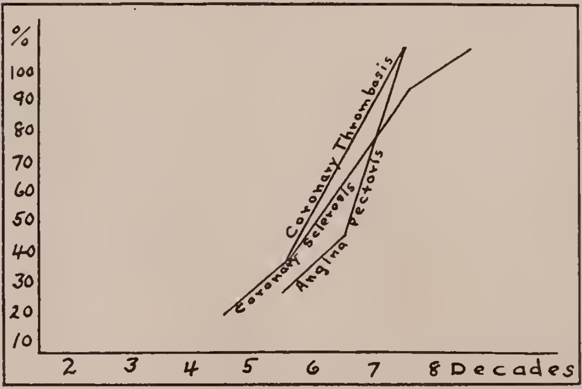

Chart 4-A.—Age in Decades.

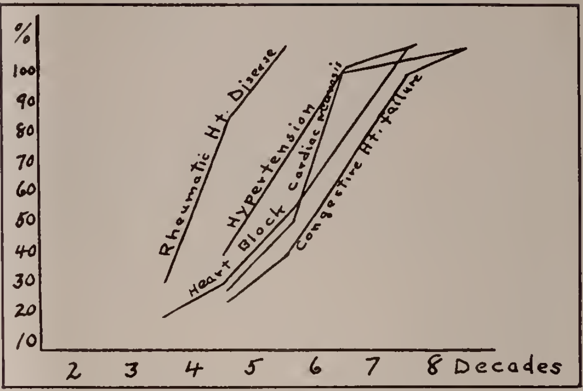

Chart 4-B.—Age in Decades.

COMMENT

Physicians, as a whole, are not good patients. They have abundant opportunity to observe the seriousness of heart disease. All too frequently they desire to have a hand in the treatment of their own illnesses. The restrictions and rules laid down for the usual patient with heart disease seem entirely unnecessary to a medical man. One sees gratifying exceptions to this rule. Undoubtedly the prognosis has been favored in some cases by a coöperative attitude based upon a realization of the seriousness of the problem to be faced. A firm decision to live within one's restrictions, whatever they may be, is a most hopeful sign. I have seen one physician attend a confinement case at night within ten days from the onset of a severe coronary thrombosis. Another was reported to be painting a garage at his beach house within three weeks from the onset of a similar condition. Suffice it to say, both died within a short time. All physicians examined are advised to report regularly for follow-up examinations. Only a small percentage do this. We have those therapeutic nihilists who doubt the value of any scheme of medical treatment. These Doubting Thomases argue the value of every grain of digitalis. One patient recently objected to taking theobromin or any of its compounds, stating that in his opinion theobromin was a urea-forming drug, and that he might increase his tendency to gout.

SUMMARY AND CONCLUSIONS

One can observe from all available data that heart disease is on the increase in physicians in this country. Exact reasons for this are not entirely clear from the available literature, nor from a review of the case histories of 165 patients studied here.

The indirect etiological factors very likely include the mental stress, irregular habits, exposure to disease, physical exhaustion, etc., which combine to harass the physician's life. Experience here also shows that while the medical man is reckless of health while well, he is also frequently regardless of his future, when ill.

1930 Wilshire Boulevard.

DISCUSSION

Eugene S. Kilgore, M. D. (490 Post Street, San Francisco).—Doctor Langley's observations of physicians contain implications of wider significance. Essentially, he has depicted cardiovascular degenerative disease in a limited class. Part of the apparent increase in incidence may be debatable, *i. e.*, may be attributed to changing fashions of diagnoses as they appear on death certificates. But this applies equally to other portions of the population, and there appears to be no escape from the main conclusion that doctors fare badly in comparison with other groups. The reasons for this suggested by Doctor Langley are plausible to a degree, but not very convincing; for why should not the irregular meals cause digestive discomfort rather than arteriosclerosis: are not many other groups more exposed to inclement weather than the modern doctor in his closed car, and do not other professional men and business men have their worries perhaps as much as the doctor even if not his irregular hours of sleep?

And if the doctor's handicap is not impressive, he might be expected, *per contra,* to have a very great advantage. He is the repository of all that science can tell of how to prevent and control arteriosclerosis. Despite the shocking examples here described, he is, we trust, not below the general average in intelligence and prudence. So then this is the depressing general implication of the picture presented by Doctor Langley: that we know little and/or that we can or will use little of what we know about the prevention and treatment of degenerative disease. Not flattering, not comforting, not "constructive criticism," but truth; and as such it should be respected by those who write and go before the microphone to inform the public.

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Willard J. Stone, M. D. (65 North Madison Avenue, Pasadena).—I, too, have been impressed with the apparent increasing mortality rate among physicians from heart disease. I have, however, not been convinced that the mortality among physicians was higher from heart disease than that which has occurred among the population as a whole during the past decade. It is probably true that the physician's life of anxiety and responsibility in an age of speed in all things has decreased his average span of life, but it is likewise true that the hurry of modern life, with less time for relaxation than our ancestors enjoyed, has in all probability shortened the lives of those in other walks of life who bear equal responsibility with its attendant worries and cares. The Metropolitan Life Insurance Company has recently published its mortality rates for the first seven months of 1935. The rates of death among 100,000 industrial policyholders were given as follows:

1. Diseases of the heart (excluding pericarditis, acute endocarditis and acute myocarditis, but including disease of the coronary arteries and angina pectoris), 201.7.

2. Chronic bright's disease, including cerebral hemorrhage, but excluding acute Bright's disease and cerebral thrombosis, 127.7. It will thus be seen that heart disease and chronic Bright's disease, which include the so-called vascular hypertension group, occupied the first two places among the causes of death among their industrial policyholders. This group probably represents a general average for the population as a whole.

It has been my unfortunate experience to encounter syphilitic heart disease among physicians rather frequently. It will serve a useful purpose if someone some day will compile some data and emphasize the penalty of a negative Wassermann and Kahn test in tertiary syphilis among the professional classes who, like physicians and dentists, may suffer accidental specific infection. The possibility of such a contingency should be considered in every case of chronic heart disease among physicians, purely from the clinical findings and irrespective of the blood report.

THE FREQUENCY OF BOTULISM*

By Karl F. Meyer, Ph.D., M.D.
San Francisco

In a report[1] on the intoxications due to the ingestion of the poison generated by Cl. botulinum and parabotulinum, the data were thus summarized:

The 191 single or group intoxications reported in the United States and Canada, from 1899 to September, 1930, involved a total of 625 persons with 411 deaths. The case mortality rate had risen from 61.7 per cent in 1922 to 65.7 per cent in 1930; seventy outbreaks have been proved toxicologically and bacteriologically. For a number of years, particularly during 1926-1927, few authentic cases of botulism were reported, largely due to the after-effects of the flood of publicity which called attention to the possible danger inherent in inadequately sterilized or preserved food products, especially those home-canned.

INCREASE IN NUMBER OF INTOXICATIONS REPORTED

During the past six years a definite increase has been noted, and *in 1935 the single or group intoxications reached the alarming figure of twenty-two.* This total greatly exceeds the expectancy average, which during the period of intensive research on botulism—1918 to 1925, inclusive—was approximately thirteen outbreaks annually. In fact, it is noteworthy that eighty-six, or one-third of the total number of botulism outbreaks, occurred during the period from 1929 to 1935. It is reasonable to conclude that many of the preserving activities incident to the depression are largely responsible for this increase. However, it must be emphasized that in no instance was home-canned food, prepared and sterilized by a community cannery, involved in the intoxications.

ANALYSIS OF HISTORIES

An analysis of the histories of these tragedies leaves no doubt that, with one or two exceptions, the intoxications occurred among people in rural districts where they could not be reached by any method of warning. Understerilization or inadequate, careless curing have been the prime factors responsible for the botulinus spoilage. The majority of the unfortunate victims still used the antiquated cold-pack method of sterilization. They neither possessed the money nor the intelligence to operate successfully a pressure sterilizer. Moreover, they were not familiar with the standards of quality, and tried to salvage partly spoiled food. Home-canned string beans (sixty-nine outbreaks), approximately one-third of all the single or group intoxications due to vegetable products, continue to play an important rôle. Spoilage of this vegetable when preserved is sometimes so slight that the person opening the jar will fail to detect it. To serve string beans cold as salads, and to mask any odor which might arouse suspicion by the use of a vinegar dressing, is a common custom which only too often leads to botulism. *Until*

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* From the George Williams Hooper Foundation, University of California, San Francisco.

TABLE 1.—*Geographic Distribution of the Single and Group Intoxications of Botulism During the Years 1899 to 1935*

State	Locally Grown and Home Canned	Commercially Canned or Preserved	Unknown	Total
Alabama	1	0	0	1
Arizona	0	1	0	1
California	72	17 (2 Italian)	12	101
Colorado	15	3	2	20
Connecticut	0	0	1	1
Florida	1	0	1	1
Idaho	6	0	0	6
Illinois	1	2 (1 Italian)	0	4
Indiana	1	2	0	3
Iowa	1	0	0	1
Kansas	1	0	0	1
Maine	1	0	0	1
Massachusetts	2	1	1	4
Michigan	1	3	0	4
Missouri	0	1	0	1
Montana	7	1	0	8
Nebraska	5	0	0	5
New Jersey	3	0	0	3
New Mexico	3	0	0	3
New York	7	3	2	12
North Dakota	3	0	0	3
Ohio	1	3	0	4
Oklahoma	1	0	0	1
Oregon	15	0	1	16
Pennsylvania	2	1	0	3
Tennessee	1	1	0	2
Texas	2	1	0	3
Utah	1	0	0	1
Washington	33	3	2	38
Wisconsin	1	1	0	2
Wyoming	3	2	0	5
Dominion of Canada	0	1	1	2
Total	191	47	23	261

every farmer's wife has been taught that all vegetables or other nonacid foods home-canned by the boiling water or oven process must be thoroughly boiled before they are served, botulism intoxication may be anticipated. Every agency, particularly those distributing glass jars for canning, bear a heavy responsibility. They should participate in the education of the masses as to the necessity for safe preservation of nonacid foods and for *boiling all home-canned vegetables before use.* The commercial packing industry has done its share to remove the botulinus menace. The public health workers, the home economics teachers, and the farm advisers, have done their part. The next step must be taken by the distributors of the containers commonly involved in botulism in recent years. They should discontinue the publication and dissemination of unsafe processing procedures.

SERUM THERAPY

The 261 single or group intoxications, collected over a period of thirty-six years, involved a total of 794 persons, with 517 deaths. The mortality rate has remained at 65 per cent. However, a perusal of the histories leaves no doubt that in the relatively few cases in which early serum therapy was instituted, the fatality rate has been definitely reduced. Although the case for or against the serum cannot be decided from the incomplete data, there are definite indications that the early intravenous administration of large amounts of Type A and B serum is beneficial. Furthermore, from recent personal observations in connection with an outbreak involving ten persons, it is the belief of those who saw these cases that the liberal use (one to two liters) of glucose solution (15 per cent) intravenously has been responsible for the

Table 2.—*Single and Group Intoxications Due to Botulism in the United States and Canada, 1899-1935*

Year	189 Home Preserved		47 Commercially Preserved		Unknown	Total
	Bacteriologically Proven	Bacteriologically Not Proven	Bacteriologically Proven	Bacteriologically Not Proven		
1899-1909	..	3	..	..	..	3
1910	..	2	..	1	..	3
1911	0	0	0	0	1	1
1912	1	2	0	2	..	5
1913	0	3	0	1	1	5
1914	1	1	1	0	..	3
1915	2	2	0	3	1	8
1916	3	2	0	0	2	7
1917	3	4	0	2	..	9
1918	3	9	0	1	1	14
1919	0	9	3	2	2	16
1920	1	3	4	2	1	11
1921	4	4	5	4	1	18
1922	11	6	1	1	4	23
1923	4	7	0	0	3	14
1924	4	4	2	2	..	12
1925	2	1	3	2	1	9
1926	1	2	0	0	0	3
1927	4	1	0	0	0	5
1928	3	3	0	0	..	6
1929	3	6	1 (Italian)	0	1	11
1930	0	5	0	0	..	5
1931	2	8	0	1 (Italian)	..	11
1932	5	10	0	0	..	15
1933	3	10	0	1 (?)	2	16
1934	0	4	1 (German)	0	1	6
1935	5	15	0	1 (?)	1	22
Total	65	126	21	26	23	261

relatively low mortality rate of 30 per cent. In combination with the antitoxin (5,000 to 10,000 units), this form of therapy deserves consideration and wider use. Velikanoff[2] has recently shown that in a series of 194 patients poisoned in Russia by the botulinus toxin, 119 were treated with serum. Only twenty-four, or 20 per cent, died, while in a series of seventy-five untreated patients the mortality was seventy, or 93 per cent. In the experience of the Russian observers, one may expect a reduction in the mortality, provided the serum is administered within the first twelve- to seventy-two hours after the ingestion of the botulinogenic food.

GEOGRAPHICAL DISTRIBUTION

As a whole, the geographical distribution of the American group intoxications has changed only slightly. The rural sections of the western states in the following order, California, Washington, Colorado, Oregon, Montana, Idaho, and Nebraska, continue to furnish the bulk of the observations (see Table 2). Oklahoma contributed its first group intoxication in 1935.

FOODS AT FAULT

In Table 3 the foods incriminated or proved to be responsible for the 261 outbreaks are listed. As already emphasized, home-canned string beans and corn continue to play an important rôle. Foreign, commercially preserved fish products and specialties have been connected with several intoxications. Unfortunately, the presence of the toxin has been demonstrated in only one of these commodities (smoked sprats). Of interest are the poisoning cases in San Jose, which followed the consumption of a fermented soy-bean mash[3] and, the three cases at Selma, California,[4] due to cheese. In both instances the vegetable mash wrapped in a cloth sack, or the casein curd placed in a ten-gallon crock with the canvas cover side down, had been buried in the soil in order to aid the fermentation. Since Cl. parabotulinum Type A, most frequently found in the earth samples of the par-

Table 3.—*Foods Involved in Outbreaks of Botulism 1899-1935 (December)*

String beans	69	(Three commercially packed, not proven)
Corn	28	(One commercially canned) (One commercially packed, not proven)
Olives	14	(Thirteen commercially packed) (One home canned)
Spinach or chard	18	(Nine commercially packed, four proven direct, one indirect)
Beets	11	(Two commercially packed, one proven indirectly)
Asparagus	10	(Home canned)
Chili peppers	6	(Home canned)
Pears	4	(Home canned)
Apricots	3	(Home canned)
Figs	3	(Home canned)
Okra	2	(Home canned)
Peas (?)	2	(One commercially packed, not proven)
Antipasto (Italian)	2	(Commercially packed)
Apricot butter	1	(Home canned)
Cauliflower	1	(Home canned)
Celery	1	(Home canned)
Dried beans	1	(Home canned)
Greens and turnip tops	3	(Home canned)
Green tomatoes	1	(Home canned)
Home brew	1	(Home canned)
Mangoes	1	(Home canned)
Mushrooms	1	(Home canned)
Peas, string beans and carrots	1	(Home canned)
Persimmons	1	(Home canned)
Eggplant	1	(Home canned)
Pickles	1	(Home canned)
Pimientoes	1	(Home canned)
Salad dressing	1	(Home canned)
Shallots, Muscari	1	(Commercially packed in Italy)
Soy beans mash "Natto"	1	(Home preserved)
Succotash	1	(Home canned)
Squash	1	(Home canned)
Tomato catsup	1	(Commercially packed ?)
Tomato relish	1	(Home canned)
Tomato juice	1	(Home canned)
Turnips	1	(Home canned)
Vegetable soup mixture	1	(Home canned)
Yellow beans	1	
	199	
Porkproducts	11	(Home preserved)
Sea food	11	(Six commercially canned)
Beef	5	(Home preserved)
Sardines	2	(Two commercially canned)
Spratts	1	(Commercially canned)
Cheese	4	(Home preserved)
Chicken	2	(Home preserved)
Milk	1	(Commercially canned)
Potted meat	1	(Commercially canned)
Sausage	1	(Commercially preserved)
	39	
Unknown (inclusive one home prepared food)	23	
Total	261	

ticular regions in which these observations were made was isolated, it is reasonable to suspect that the food articles became impregnated with these soil anaerobes. The family who prepared the cheese descended from a race of people (Armenians) accustomed to cure their dairy products by placing them in the dry desert soil. What was, doubtless, a harmless and convenient method of preservation became a very risky procedure in a part of the world in which the spores of Cl. parabotulinum are ubiquitous. Although understerilized plant products were involved in 76.3 per cent of the cases, it is important to emphasize that animal products (14.9 per cent) continue to play a rôle in the outbreaks. Among the newer foods associated in the recent fatal cases, home-canned pork, salmon, and crab meat must be mentioned.

DIAGNOSIS

The investigation and ultimate confirmation of the clinical diagnoses leaves a great deal to be desired. It is indeed unfortunate that less than one-fourth of the intoxications were confirmed by the demonstration of the toxin in the foods apparently responsible for the illness or the deaths. The remoteness of the farms or homesteads on which these accidents occurred, the late recognition or notification of the sickness may be in part responsible. On the other hand, it is evident that the public health authorities in some of the western states failed to investigate the cases of poisoning when suitable specimens for study were still available or competent epidemiologists could have clarified the puzzling problems involved. By comparison with the period 1918 to 1924, *the interest in botulism as a public health problem has lost a great deal.* It is hoped that the distressing facts exhibited by the 1935 statistics on botulism will arouse enough curiosity for a renewed consideration of this important and generally preventable disease. Furthermore, it is the duty of the health officers and food-control agencies to wage a relentless educational campaign to acquaint the public with the inherent dangers of *inadequately processed or abnormally fermented spoiled foods.*

Third and Parnassus avenues.

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THYROID GLAND: TOXIC ADENOMA WITH NORMAL OR LOWERED BASAL METABOLIC RATE*

By Henry Hunt Searls, M.D.
San Francisco

Discussion *by Wallace I. Terry, M.D., San Francisco; Clarence G. Toland, M.D., Los Angeles; Carl L. Hoag, M.D., San Francisco.*

In the study of adenomatous goiter at the University of California Hospital, evidence of toxicity has been noted commonly in patients with the clinical picture of hypothyroidism, and with normal or subnormal basal metabolic rates. The frequency of this apparent paradox appears to be sufficient to warrant comment and to stimulate the search for its explanation.

PLACE OF THE LABORATORY REPORT IN DIAGNOSIS

The medical student is warned that, in the development of a diagnosis, laboratory findings should serve only as adjuncts to the carefully developed history and physical examination of the patient. Such tests have great significance when properly evaluated, but there is a distinct tendency in medicine generally to place too much weight on laboratory data and too little reliance on clinical judgment. Thus, the medical profession (and the laity as well) are very prone to accept the laboratory report of the basal metabolic rate as the chief and final criterion of toxicity in the patient with goiter. Should such a rate prove to be within or below normal limits, the patient too often is reassured and treatment withheld. In these patients, although the signs and symptoms which are associated with increased metabolism (feeling of warmth, hyperhidrosis, increased appetite, and loss of weight) may be absent, evidences of neurocirculatory poisoning (tremor, increased emotionalism, irritability, and attacks of palpitation) frequently may be elicited. There even may be the picture of advanced toxic myocarditis with auricular fibrillation and cardiac decompensation.

ON THE BASAL METABOLIC RATE

In the study of the patient with goiter the presence or absence of such signs and symptoms should be determined even though the basal metabolic rate is normal or subnormal. Such an analysis frequently will be rewarded by the recognition of findings referable to toxicity.

These patients may have the classical signs and symptoms of hypothyroidism, as well as evidence of toxicity. They commonly will be overweight, with a hypothyroid type of distribution of fat, dry skin and intolerance to cold. The hair may be coarse and scant, the mentality dulled, and often there is an increased need for sleep.

It is quite evident from a study of the literature that the fallacy of dependence on the basal metabolic rate has been recognized frequently.

Morris[1, 2] and Reid[3] of Cincinnati noted normal and subnormal basal rates in patients, both with nodular and with diffuse goiter, who showed signs and symptoms of toxicity and who were relieved by operation. After operation, they often observed a return from subnormal to normal basal metabolic rates. In their opinion, when there is a demonstrable goiter associated with clinical evidence of thyrotoxicosis, a normal or subnormal basal metabolic rate should be disregarded entirely.

Gilman and Kay,[4] in 1930, advised that toxic adenomata may be present in the patient who has a normal or subnormal basal metabolic rate.

Wohl[5, 6] recently described patients with "hyperthyroidism" (without, however, differentiating between adenomatous and hyperplastic types) exhibiting a lowered basal metabolic rate.

McGregor[7] recognized the patient with adenomatous goiter showing signs and symptoms of toxicity without rise in the basal metabolic rate.

Coller and Arn[8] noted fibrillation and a peculiar nervousness in patients with adenomata of the thyroid who exhibited normal or subnormal basal metabolic rates. Following removal of the adenomata, the toxic symptoms disappeared and in about one-half of their patients with subnormal basal metabolic rates, there was an increase toward the normal.

Although not within the scope of this discussion, one might mention the numerous references, especially in the French and American literature, to the frequent occurrence of hyperplastic (exophthalmic) goiter without increase in basal metabolic rate—the "formes frustes Basedow" of Charcot and the "masked" or "burned out" hyperthyroidism of the American observers.

HYPOTHYROIDISM WITH "HYPERTHYROIDISM"

In attempting an explanation of the apparent antagonism of hypothyroidism in association with symptoms and signs of so-called "hyperthyroidism," a number of factors must be considered. First, it is felt that the secretion from adenomatous tissue differs physiologically from that of the thyroid gland proper, inasmuch as it poisons the central nervous and cardiovascular systems. Both types of secretion are capable of raising the basal metabolic rate, but the secretion from the adenomatous tissue cannot be substituted for that of normal thyroid tissue. In other words, secretion from adenomatous tissue represents a type of thyroid dysfunction.

Secondly, the patients who exhibit this peculiar picture of toxic adenomatous goiter with hypothyroidism commonly have had preëxisting colloid or adolescent goiter which are types associated with lowered thyroid function.

Thirdly, the growth of the adenomata within the thyroid gland causes fibrosis and pressure-atrophy of the glandular tissue in which they are developing, and thereby further reduces the output of normal secretion (Fig. 1). Evidence of former inflammatory reaction occasionally can be noted in the enveloping glandular tissue and may indicate even additional crippling of thyroid function.

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* From the department of surgery, University of California Medical School.

Read before the General Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13 to 16, 1935.

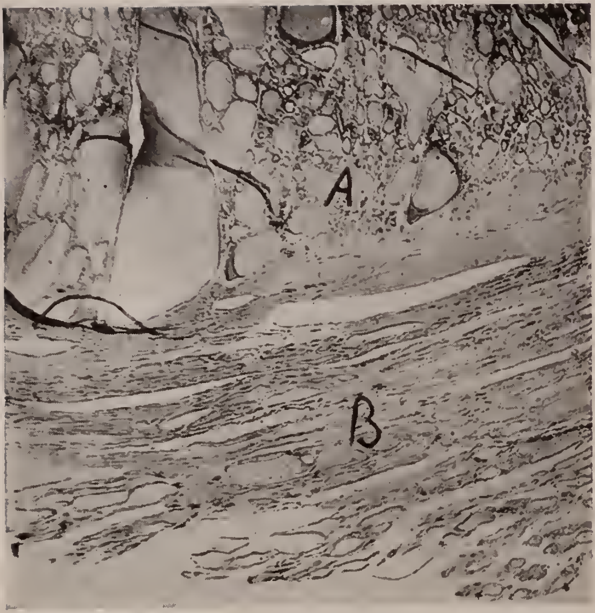

Fig. 1.—Photomicrograph of a section of an adenoma which, by its growth, has caused pressure atrophy and fibrosis of the surrounding thyroid tissue; *A*, adenoma; *B*, compressed thyroid.

CLINICAL EXHIBITION OF A HYPOTHYROID STATE WITH LOWERED BASAL METABOLIC RATE

Bearing in mind this conception of the normal and abnormal anatomic and physiologic picture of the adenomatous goiter, a possible explanation can be advanced for the clinical exhibition of a hypothyroid state with lowered basal metabolic rate in a patient presenting signs and symptoms of toxicity.

The thyroid gland proper, having had previously the somewhat lowered function associated with adolescent or colloid goiter, has become atrophic from the pressure of the adenomata growing within it, and thereby suffered further reduction of its secretory output. Secretion from the adenomata being abnormal, and therefore incapable of substitution for the normal secretion, the clinical picture of hypothyroidism develops.

Both types of secretion are capable of raising the basal metabolic rate toward the normal reading. If, however, the gland proper has been badly atrophied, its secretion may be so scant as to have little influence on metabolism. In such an instance the secretion from the adenomata struggles alone to raise the rate toward normal, frequently falling short of, or just reaching this goal. Along with its ability to raise the basal metabolic rate toward a zero reading, this abnormal secretion poisons the cardiovascular and central nervous systems. As a result, such a patient presents the picture of hypothyroidism with a normal or subnormal basal metabolic rate, together with evidence of toxic myocarditis and poisoning of the central nervous system.

TREATMENT

Removal of all adenomatous tissue with careful preservation, as far as possible, of the gland proper is the evident treatment of choice.

Following such operative procedure, there is a tendency for a regeneration and return to function of the remaining tissue; which, together with the administration of thyroid substance (contraindicated in these patients before removal of their adenomata), will alleviate the hypothyroid state. Concomitant relief from the nervousness, increased emotionalism and cardiac symptoms may be spectacular.

SUMMARY

1. The patient with adenomatous goiter frequently exhibits toxic signs and symptoms together with a more or less advanced hypothyroidism.

2. In such instances the basal metabolic rate may be normal or even subnormal; therefore it should not influence the diagnosis or treatment.

3. An attempt has been made to explain this apparent paradox.

4. Removal of the adenomata offers relief of toxic symptoms and may lessen the hypothyroidism.

University of California Hospital.

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DISCUSSION

Wallace I. Terry, M. D. (384 Post Street, San Francisco).—There is little doubt that many medical practitioners are inclined to minimize the importance of toxic adenomas of the thyroid in the absence of an increased basal metabolic rate. Doctor Searls has rightly maintained, in substance, that the basal metabolic rate is not a true measure of the toxicity of adenomata, and that the laboratory findings should be correlated with the clinical picture.

We should differentiate between the hyperthyroidism due to hyperplasia of the thyroid gland (exophthalmic goiter) and that due to long-standing adenomas of the thyroid (nodular goiter). In the former, the onset of nervousness, tremor, tachycardia, loss of weight and eye signs is rapid, and can usually be measured in days or weeks; whereas in nodular goiter we ordinarily have a history of goiter without symptoms for a period of years before the onset of nervousness, tremor and tachycardia, but no eye signs, such as exophthalmos, unless there is also a concurrent hyperplasia of the thyroid gland proper. To these we should add the varied basal metabolic readings of the two diseases, as brought out by Doctor Searls. There are other reasons for opposing the idea that exophthalmic goiter and toxic adenoma are not essentially the same disease, but these need not be brought in here.

I fully concur with the author's conclusions.

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Clarence G. Toland, M. D. (1930 Wilshire Boulevard, Los Angeles).—In a recent analysis of three hundred cases of toxic adenomatous goiter we found that approximately 8 per cent of this group showed a subnormal metabolic rate. The metabolic rates varied from minus three to minus twenty-eight. In evaluating the surgical possibilities of cases such as these, the clinician with a limited thyroid experience will be prone to place too much emphasis upon the metabolic rate. A confused diagnosis results, and the necessary surgical enucleation of the adenoma may be indefinitely deferred.

We are indebted to Doctor Searls for his efforts in bringing to our attention the proper procedure in the management of this unusual type of goiter.

Not all of these cases tend to obesity. In our series about 50 per cent had a definite loss of weight, but there were lacking the signs of vasomotor instability so characteristic of the hyperthyroid individuals.

We found it of value, particularly in the obese types, to preface thyroidectomy with a course of thyroid extract, and this was usually continued after operation until the residual gland had apparently attained its maximal recovery. As Doctor Searls has pointed out, it was assumed that the adenoma produced the hypothyroidism by pressure upon the normal thyroid tissue, while at the same time causing a toxicity from an internal secretion of its own.

In contradistinction to the more or less radical subtotal thyroidectomy employed in the usual goiter, it is extremely important in these cases to adopt conservative measures. When performing the enucleation of the adenoma, an effort should be made to preserve as much normal thyroid tissue as possible. This will tend to lessen the period of regeneration, and will spare the patient the inconvenience and inadequacy of prolonged thyroid medication.

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Carl L. Hoag, M. D. (384 Post Street, San Francisco). I am in entire accord with Doctor Searls in regard to this group of goiter patients who show clinical signs of both hyper- and hypothyroidism, and of the necessity for preserving all of the normal thyroid tissue, even to the thinnest portions of the capsule. This was pointed out by me in a paper read before the sixtieth annual session of the California Medical Association in April, 1931.* It is timely that it be emphasized again, however, because many internists are still loath to accept it.

It was first called to my attention when caring for a number of patients who were scheduled for surgery when the first basal metabolic determinations became available in 1917. This group of clinically toxic adenomata proved to have normal or subnormal rates, and for this reason surgery was withheld. Eventually, however, all these patients were operated upon, in spite of the apparently contradictory laboratory findings. The adenomata were removed and the toxic symptoms disappeared. Some regained normal thyroid balance, while others remained hypothyroid and had to receive thyroid substance. This gave me my first intimation that these adenomata acted much like foreign tumors and, although they tended to elevate the basal rate and give signs of toxicity, at the same time they crowded out the normal gland, appropriated its blood supply and decreased the function to an abnormal degree. This explained the mixed clinical picture.

My experience since that time has confirmed this conception, and Doctor Searls has done well in again calling it to the attention of the profession.

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THE UREMIA OF CIRCULATORY FAILURE*

By A. A. Alexander, M.D.
Oakland

Discussion *by John C. Ruddock, M. D., Los Angeles; Thomas Addis, M. D., San Francisco; Fletcher Taylor, M. D., Oakland.*

C. V., an American electrician, age 42, entered the hospital in March, 1926, several weeks after the latest of a series of attacks of appendicitis. He had been repeatedly observed for more than a year and, with the exception of his recurrent appendicitis, showed nothing remarkable. His blood pressure was 130 to 140 millimeters of mercury, and the urine was normal. The surgeon encountered no difficulty in removing a slightly injected appendix. There was no postoperative shock. On the third day after operation, he developed hiccoughs, then nausea and vomiting. His blood pressure was low, his blood urea was 94 milligram, then rose to 118 milligrams, and on the eighth day he died, in uremia. His operative field was satisfactory and the kidneys were structurally normal.

COMMENT

These brief observations obviously leave much to be desired; but the question that I could not escape was this: By what mechanism did this patient die in uremia with apparently normal kidneys?

FUNCTION OF KIDNEYS

Kidney function may be divided into two processes. First, a rather simple phenomenon of filtration through the walls of the glomerular capillaries into the capsule. Normally, colloid molecules such as proteins do not pass; but otherwise the filtrate in the capsule is essentially identical, in character and concentration, with the plasma. The glomerular capsule is a colloidal membrane and a certain supply of oxygen is necessary to preserve its integrity; but functional activity apparently consumes no oxygen. It is, in effect, a passive filter.

The functional capacity of a filter is governed by three factors: (1) the physicochemical character of the material to be filtered; (2) the condition of the filtering membrane; and (3) the difference in pressure between the two sides of the filtering membrane. In the case of the kidney, the third factor will be, in a considerable measure, a determinant of the other two. The second renal process relates to the tubules. They perform an active function, and so consume more oxygen than do the glomeruli. As the urinary filtrate passes along the tubules, it is modified and concentrated by a process of differential absorption. Those materials which may be utilized in the economy—threshold substances—are reabsorbed to whatever extent may be necessary to restore the optimum concentration in the plasma. Sugar is entirely reabsorbed; water, sodium and chlorin as needed. The remaining materials, creatinins, sulphates and the like, are nonthreshold substances, and are not absorbed in any appreciable amounts.

The normal intravascular pressure in large vessels is, of course, between the diastolic level of about 80 millimeters of mercury and the systolic of 120 millimeters. The pressure in small vessels is about 20 per cent less. Hence the actual pressure within the renal vessels lies between 65 and 100 millimeters. Opposing this pressure, the plasma colloids exert an osmotic tension equivalent to about 40 millimeters of mercury. Therefore, the net pressure of filtration for the kidney is about 60 millimeters, the optimum pressure for maintaining filtration. In hypertension much higher pressure values appear, but they are only the expression of the energy required to maintain working pressure in the capillaries through the intervening arterial resistance. Physiologically, there is a considerable adjustability or compensation for fluctuations in net differential pressure; but long-continued departure from the optimum is attended with glomerular impairment, either functional or structural, or both.

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* Read before the General Medicine Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

Mention may be made of familiar instances of renal insufficiency developing out of disturbance of the above pressure relationship. It is common knowledge among urologists that, in obstructive disorders, the kidney ceases to function when the intravesical and intra-ureteral pressure are maintained at or above 80 millimeters of mercury; that is, the net pressure is zero, and again in congestive failure and toxic heart, as in pneumonia, as the venous pressure rises in opposition to arterial pressure, oliguria, albuminuria and blood nitrogen accumulation tend to ensue. As pointed out by Foster,[1] uremia, as connoted by the rising level of nonprotein nitrogen in the blood, is purely circulatory and independent of any structural pathology of the kidneys. Experimentally, too, if the renal veins or the aorta above the renal arteries be constricted, producing a fall in renal vascular pressure, the same syndrome of anuria, albuminuria and azotemia ensues. The disturbances in $O\text{-}CO_2$ balance, if maintained, alter the permeability of the glomerular membrane, so that, in addition to its lowered filtration capacity, it permits the escape of albumen and blood cells; but it is to be noted that primarily the changes involved are functional, and that with reasonably prompt restoration of balance the kidney recovers without structural damage. If, however, the disturbed capillary pressure relationships cannot be restored, loss of appetite, weakness, stupor, coma, and death follow from latent uremia. This type of uremia is characterized by moderate to high concentration in blood nitrogen, and the absence of any rise in blood pressure (Wright[2]).

REPORT OF CASES

We present here, from a small group of seven cases, the histories of two patients who developed an interesting mechanism of vascular failure with urinary suppression and uremia. The cases studied have all been related to trauma, not necessarily operative nor with anesthesia. So far as could be determined all of these patients had normally functioning kidneys both before trauma and after recovery; and in those who died and were autopsied the kidneys were found structurally normal. No patients have been included who had known renal disease, or whose trauma involved interference with the urinary tract. One typical fatal case was seen following cystoscopy and ureteral catheterization. These conditions offer an added element of risk because of the local conditions, and for obvious reasons are omitted, although we believe some of them could properly be added to the group.

Case 1.—W. R., 24409, a garageman, age 65, was admitted to the hospital on October 15, 1931, suffering from a fracture of the femur. Without anesthesia the leg was put in traction. He had always enjoyed good health. His blood pressure had been 150 to 160, and there had been no evidence of renal disease. His urine on admission was normal, containing no casts or blood cells. There was no apparent shock. During the next days he suffered considerable pain, and consumed but little water. His urinary output averaged 425 cubic centimeters, but was normal chemically and microscopically. When seen on the fifth day he was mildly stuporous, refusing food or drink, and vomited several times. The pulse was regular: 80 to 90. Temperature was 101; respirations, 20. Blood pressure was recorded as 100/80. The blood urea was 91 milligrams per cent. The patient was given 1,000 to 1,500 cubic centimeters of 10 per cent glucose in normal saline per day intravenously and caffein sodio benzoate 0.5 gram intramuscularly every four hours, with an increase in urinary output to 800 cubic centimeters; but the blood urea was 91 milligrams. The abdomen became markedly distended, with no discoverable peristalsis, the urine dropped to 400 cubic centimeters, and the blood urea rose to 118 and 120 milligrams. The urine showed a trace of albumen and occasional hyalin casts. The paralyticileus added to the difficulties, but was ultimately overcome. The intravenous fluids were maintained, and on the eleventh day he was only mildly stuporous, with an output of 1,100 cubic centimeters and a blood urea of 88 milligrams. Three days later the urea was 40 milligrams, and he was quite himself mentally. The blood pressure, which had remained between 90 and 100 during this time, rose as the blood urea fell. At the end of a month the pressure, blood urea and urine were normal and have remained so to the present.

* * *

Case 2.—Mrs. H., 2281C, an American housewife, age 42, had been observed by her physician for ten years. She had had the usual childhood diseases and had two children alive and well. Her only complaints had been a series of respiratory infections, for which her tonsils had been removed about five years ago, and a urethral caruncle about six months, which was cauterized with relief six months before entry to hospital. Repeated urinary examinations had been negative. She entered Samuel Merritt Hospital on September 25, 1934, for surgical relief from cystocele and rectocele, with moderate prolapse of the uterus and endocervicitis. On admission her physical examination was negative; the heart and lungs were normal; blood pressure, 138/90; urine: neutral, specific gravity 1010, no albumen or sugar, pus cells in clumps. At operation, on opening the abdomen several fibroids were discovered, and the uterus, tubes and appendix were removed. The operation required an hour and a half, but presented no difficulties and there was little hemorrhage. The patent left the operating room in excellent condition; pulse, 96 and of good quality; respiration, 20. The patient was in satisfactory condition for twenty-four hours, received 1,000 cubic centimeters of normal saline per rectum, took some water and vomited at intervals; but then became restless and apprehensive, and showed some mental confusion. Blood pressure declined rapidly to 40/0. The pulse rate rose to 140, respiration 10 to 12. There was complete anuria. Blood urea was 57 milligram per cent, and it was noted that the serum albumen-globulin ratio was reversed. Caffein and glucose solution were given liberally, but the pressure did not rise, nor was there any urine. The patient grew more restless and delirious, then sank into coma and died.

Autopsy.—The field of operation was explored and found in excellent condition. There was no hemorrhage. The ureters were explored and found intact. No evidence of embolus could be found. The kidneys were removed and appeared quite normal, although somewhat congested. The heart and lungs were normal. Microscopic examination of kidney by Doctor Glenn showed normal architecture and blood vessels. There was moderate interstitial congestion, and some extravasation of blood cells into the tubules.

COMMENT

It is apparent that in the first of these patients the process developed rather insidiously over a period of days, while in the other it was abrupt and profound, but the mechanism was the same. We have studied seven patients in this series; two following appendectomy, four following fractures (none had anesthesia), and one following pelvic surgery. The critical level of reduced blood pressure had varied between 100 and 40 millimeters of mercury. It appears not unlikely that the phenomenon is not a simple vasomotor collapse, but rather a loss of circulating fluid into the tissues, of which the fall in blood pressure is a sensible index.

MEDICAL SHOCK

Clearly, in these reported cases, as in the remainder of the series, the mechanism is one of delayed shock. Traditionally, shock has been associated in the mind with trauma or hemorrhage, whether surgical or accidental. It is, appropriate, however, to consider certain medical conditions in the same category. As Atchley[3] has said: "Doubtless there are better words than 'medical shock,' but the well-known connotation of 'shock' makes it a word difficult to discard"; and again MacFee and Baldridge[4] observe: "If we bear in mind that severe trauma may be inflicted upon the body by certain bacteria, by chemical poisons, by privations, and in many ways other than mechanical, the widespread possibilities of shock are recognized. The involved nature of the condition precludes definition, since it is impossible to contain in a single phrase the collective physiologic changes that occur." In addition to trauma or hemorrhage, burns, sunstroke, intestinal obstruction, snake-venom poisoning, heat prostration, hyperemesis, dysentery and cholera (Rogers[5]), Addison's disease, acute coronary occlusion, diabetic anhydremia or ketosis, and some of the acute infections, such as pneumonia, involve in addition to or as part of their characteristic picture, the elements of shock. In all of them there is a significant fall in vascular pressure, "the physiologic result of an acute disparity between the circulating blood volume and the functioning capacity of the vascular bed" (Atchley[6]).

The time elapsing from trauma until the onset of symptoms has varied from twenty-four hours to five days, but in medical shock it may be longer. Apparently, three factors contribute. First, the loss of fluids: Coller and Maddock[7] estimated that the average surgical patient, in simple surgical procedures such as tonsillectomy, will lose from 3,000 to 4,000 cubic centimeters of fluid per day, "the insensible fluid loss" through skin, lungs, etc. Second, the summation of stimuli. Freeman[8] found that continued administration of adrenalin resulted in a loss of 14 per cent of blood volume and purely affective states in a loss of 21.9 per cent of volume. And, third, a large majority of these patients during a period of days suffer a loss of body proteins, which results in an imbalance of osmotic pressure between tissues and blood; that is to say, a migration of water from the capillaries into the tissues and a corresponding increase in plasma colloid concentration. The net result of the disturbed mechanism is a fall in blood pressure, and urinary output, with a urine of higher concentration.

SHOCK IN RELATION TO KIDNEY FUNCTION

It is the purpose of this discussion to emphasize the influence of these hypotensive crises of shock, whether medical or surgical, upon the functional activities of the kidneys, and the toxic condition (uremia) resulting therefrom. The physiologic relationships have been outlined in the early paragraphs. Clinically, there have been surprisingly few observations. Evans[9] reported a case similar to the second one here reported, and Steinberg[10,11] has published observations upon blood urea and kidney function in coronary thrombosis. He maintains that the fall in vascular tension is not wholly responsible for the disturbed renal function. In this we agree, but we contend that its occurrence is an essential result of the underlying physiologic disturbances. The disturbance of blood nonprotein nitrogen in postoperative patients has been discussed by Derow.[12] Rogers[5] has urged shock therapy in cholera, and pointed out the disturbance of kidney function.

THERAPY

Therapy in these cases of shock with uremia offers a fair prospect of success if the condition is recognized early. Patients, such as the second one cited, who show a rapid, profound drop in pressure, offer a poor outlook; but those in whom a less critical drop appears, rapidly lose ground with time. Frequent observations as to blood pressure, and the balance of fluids and urinary output, with blood urea estimation in those who show material change, may be instrumental in saving life. Our experience is in harmony with Atchley,[6] who says: "The longer the state of shock is permitted to exist, the more difficult it is to alleviate it and the higher the mortality."

It has many times been contended that relaxation or paralysis of the peripheral vessels occurs in shock and that, therefore, vasoconstrictors, such as ephedrin, adrenalin or pituitrin, are indicated. Freeman has shown that prolonged vasodilatation does not result in loss of blood volume, but the reverse, and biopsies have shown the smaller arteries are constricted in shock. Therefore, the administration of vasoconstrictors tends only to increase the disadvantage of the capillary circulation. It is our belief that caffein in fairly large doses, affecting, as is asserted, a dilatation of smaller arteries, is the stimulant of choice.

Obviously, the chief effort in therapy should be directed toward correcting the "disparity between the circulating blood volume and the functioning capacity of the vascular bed." Because of the depressed condition of peripheral circulation, subcutaneous or intramuscular absorption is greatly slowed, and response is correspondingly delayed. The route of administration is necessarily intravenous. While no arbitrary rule can be offered, the volume administered must be relatively large, 2,000 to 4,000 cubic centimeters in twenty-four hours. Fluid should be added until the twenty-four hours urinary output is 1,500 cubic centimeters or more, and of a specific gravity of 1,020 or less. We are in agreement with Derow, who says, "It must be stressed that the volume of urine, and not the volume of fluids given, is important."[12] As progress is made, the fluids may, of course, be administered by other than intravenous channels.

As a rule the first attack should be 1,000 cubic centimeters of 10 per cent glucose in normal saline. It furnishes a quick response, not only because of its volume, but because the glucose tends to draw fluids from the tissues into the blood vessels. The readjustment, however, is more or less temporary, unless normal saline be continued. Wakefield and Keith[13] have pointed out the occasional untoward effects of sodium chlorid in seeming to induce anuria in severe renal insufficiency of nephritis, but experiments in normal individuals have not indicated similar dangers. We have not resorted to so-called venoclysis, nor have we been fearful of heart strain. Experiments on both man and animals (MacFee and Baldridge), relative to blood dilution and arterial pressure, indicate that both the volume and rate of flow of infused fluids may be greatly increased without fear of overloading the circulatory mechanism. Boycott injected normal rabbits with Ringer's solution, equivalent to the animal's blood volume in five minutes, and estimated that at the end of the injection 67 per cent of the infusion had passed from the blood into the tissues. In man, with a heart rate of 85 per minute, it is estimated that the load resulting from infusion at 2,000 cubic centimeters per hour is 0.5 to 1 cubic centimeter per systole. However, in patients who exhibit evidences of cardiac failure, we administer infusions more cautiously, using 500 cubic centimeters three or four times a day, preferably. We have never felt that the infusion was responsible for any added strain on the heart; in fact, in failing circulation due to pneumonia, we have felt that the heart was improved.

Coones[14] has just published the results of his experiments, which indicate that, as anhydremia develops and blood pressure approaches a critical level—in man this level may not be far below 90 millimeters of mercury—a true uncompensated acidosis ensues, and that unless this can be reversed a vicious circle is set up with fatal results. In their experiments they found that intravenous administration of as little as 50 cubic centimeters of 5 per cent solution of sodium bicarbonate is followed by striking improvement in blood pressure, pulse, and respiration. The effect, however, is transient, and the treatment must be given frequently, or by continuous drip, until the balance of circulation has been restored. Since the publication of this work, opportunity has not offered to carry out the suggested method; but we believe it may advantageously be added to the steps here described.

SUMMARY

The mechanics of kidney function are briefly outlined and the rôle of circulatory pressure therein is discussed. A type of medical and surgical shock is described, together with its bearing in suppressing kidney function, with resultant uremic intoxication. Cases are cited and an outline of treatment on physiologic grounds is suggested.

1904 Franklin Street.

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DISCUSSION

John C. Ruddock, M. D. (1930 Wilshire Boulevard, Los Angeles).—Doctor Alexander calls our attention to, and offers an explanation of a phenomenon that has occurred many times in the experience of all of us, namely, the development of uremic symptoms following injury. His experience has been, and he cites cases to the effect, that the uremia as noticed is associated with a hypotension.

We must keep in mind, however, that there are other conditions associated with hypotension that do not produce the picture described by him, namely, long-continued sepsis, diabetic coma, Addison's disease, endocrine disturbances such as myxedema, infantilism and cachexia, and disturbances of the pituitary, adrenals and gonads.

Hypotension is not a disease. However, it is true that it is, in many instances, part and parcel of a diseased bodily state, and may be compatible with perfect health. With a hypotension established of 100 millimeters of mercury or less, we find it normally in approximately 3.5 per cent of all persons examined. In the opinion of insurance medical experts, the low-blood blood pressure adds to, rather than detracts from the normal life expectancies.

It is true there are certain factors which maintain normal pressure:

1. Force of cardiac contraction.
2. Condition of the vessel walls.
3. The peripheral resistance to the blood stream.

In case of shock, several of these factors may be affected:

1. Loss of blood.
2. A decrease in the blood volume.
3. The efficiency of the heart may be impaired by a lowered-pulse pressure.

It has been established previously that trauma, operations and the use of anesthetic, especially local, increases the urea content of the blood. Hypotension aggravates a condition which is present, namely, an increase of the urea content of the blood, by reducing the excretory rate by the kidneys. It is a known fact that not over 2 per cent urea is excreted in the urine. We, therefore, have the same picture that the urologists describe as urostasis. This spoils the filter, and by decrease of the urine output the urea condition of the blood is increased and, unless relieved, uremia is impending. The rationale of treatment, therefore, would be to increase the urine output. This is accomplished by increasing the fluid intake by subcutaneous and intravenous route.

Doctor Alexander has very clearly brought out these points, which I have stressed, when he states under treatment that we must increase the volume of urine in order to excrete from the blood the excess of urea content and avoid the uremic picture, which will be the end-result in case this is not accomplished.

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Thomas Addis, M. D. (Stanford University Medical School, San Francisco).—This paper by Doctor Alexander touches on one of the medical emergencies which every practitioner has to meet, and must know how to treat. But does it make for perception of the essence of the situation in shock to describe it as the uremia of circulatory failure? For, whereas the word "uremia" has commonly been used to designate a failure of renal function due to disease of the kidney, Doctor Alexander shows very clearly that in this uremia the kidneys are normal; and while the term "circulatory failure" is correct, it is, after all, a failure not conditioned by any disease of the circulatory system itself, but one secondary to displacements of fluid within the body. But these are academic points which do not affect the vital substance of this paper, *i. e.,* its insistence on an early and energetic endeavor to replenish the fluids within the vessels. Whether we believe that it is the failure of the kidneys or the circulation, or take the view that these failures are secondary to nervous system failures, does not alter the fact that, from an empirical point of view, the therapeutic procedures suggested in this paper are those which have been found to be truly life-saving.

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Fletcher Taylor, M. D. (400 Twenty-Ninth Street, Oakland). — The clinical problem presented by Doctor Alexander is ultimately that of providing a medium which will make a living cell continue to live. This problem has both quantitative and qualitative aspects. There must be enough quantity of the medium about the cell, and it must be of the right quality. As the author and other discussers have said, the problem is best translated into clinical terms under the word "shock"; and a patient who has loss of strength, drop in blood pressure and rise in pulse rate, is less than normally alive by reason of a state of shock. Doctor Addis reminds me that not only may kidney tissue suffer under these conditions, but also other body tissues, such as nerve- and heart-muscle tissue.

The measures suggested by Doctor Alexander are useful under these conditions. Let us not, however, be enthusiastic to the point of using corrective measures which are too drastic. It is well that Doctor Alexander does not leave us with stereotyped rules to follow. The amounts of water, salt, and glucose must depend upon individual judgment of the individual patient.

⁂

Doctor Alexander (Closing).—Truly, hypotension is not a disease: it is but an expression of disturbed mechanism. In and of itself it is of no vital importance, though it must be admitted that maintained pressures greatly below 100 millimeters are not compatible with health and well-being, and the influence upon kidney function is often quite clear, as in orthostatic hypotension, where the rate of urinary output is greater during the night, because then pressure assumes a higher level than during the day. But as was stated there is apparently a considerable latitude of functional adjustment to alterations in pressure, provided the changes are not too extensive in the rate and degree of departure from the established normal for the individual.

The purpose of this paper was to point out that, in addition to the familiar surgical shock which supervenes upon trauma, there occurs at times in surgery and often in medicine a more insidious shock, often considerably delayed, but probably exhibiting the same underlying mechanism, that is, "an acute disparity between the circulating blood volume and the functioning capacity of the vascular bed." As a result of this, circulatory failure hypotension ensues, closely followed by a suppression of renal output and increasing azotemia. These two run fairly closely hand in hand and, if observed, may be reversed by restoring proper fluid balance and hydrogen ion concentration. The fundamental consideration is, apparently, the depletion of fluids and electrolytes to the point at which an uncompensated acidosis develops. In the condition described, hypotension cannot be considered in an etiologic relationship except as it bears upon kidney function. It is rather a tangible result of the more obscure mechanism of shock.

Doctor Ruddock has correctly pointed out the favorable relationship of constitutional hypotension to longevity, and he has added several pathologic conditions in which hypotension is a feature. Of these conditions certain ones involve no disturbance of the water-electrolyte balance, and in these there is little tendency to uremia; but in those which do involve such disturbances—for example, sepsis, diabetic coma, the acute episodes of Addison's disease, pneumonia, and other acute febrile illnesses, perhaps because attention is so concentrated upon the primary disorder—the nitrogen retention is not studied. However, as we have observed these patients, we have not infrequently seen a sharp decline in urinary output, and azotemia develop in close association with hypotension; and we are convinced that these developments increase the gravity of prognosis.

We appreciate, with Doctor Addis, that the "circulatory failure" involved is not conditioned by any disease of the cardiovascular system, but is, on the contrary, secondary to a more obscure disturbance. What we hoped to emphasize is that the circulatory change is often a very definite indicator, a signal of a grave complication, and that, corollary to the circulatory failure, there is evidence of renal failure—at least as connoted by nitrogen retention and failing urinary output.

The will keeps our feet on an ascending trail. Knowledge meanwhile accumulates facts. Understanding correlates them. Wisdom simplifies them. Truth is told at last in monosyllables.

The word "scholar" is derived from a root meaning "leisure." One to whom that name belongs works best in quietude. Deliberation, abhorring pressure and speed, can go only at its own pace. Haste is passed at the goal by the crutch of time.—Leon J. Richardson.

He whose blood is red, whose muscles are hard, whose sleep is sound, whose digestion is good, whose posture is erect, whose nerves are steady, has a good bank account in life—he possesses that which contributes to happiness, to accomplishment, to service, to society, to state and to country.—Calvin Kendall.

THE LURE OF MEDICAL HISTORY†

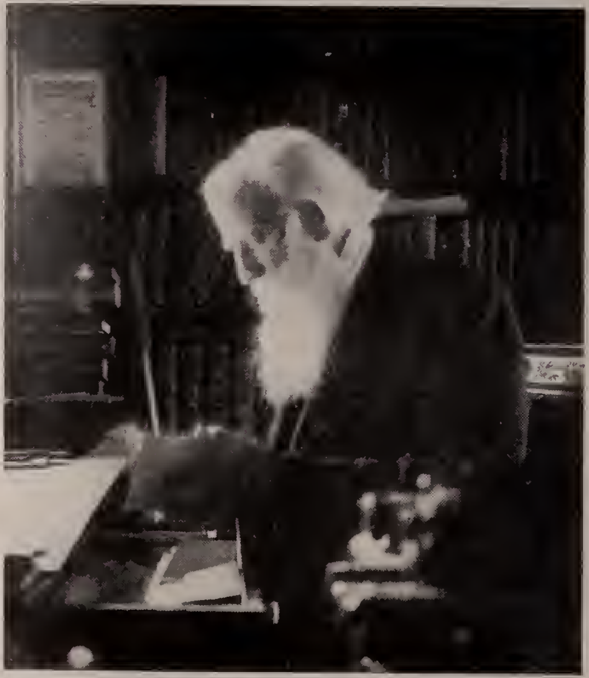
JOSEPH POMEROY WIDNEY, A.M., M.D., D.D., LL.D.

FOUNDER OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION AND OF THE COLLEGE OF MEDICINE OF THE UNIVERSITY OF SOUTHERN CALIFORNIA, CIVIC WORKER AND AUTHOR: SOME BIOGRAPHICAL NOTES ON A COLLEAGUE, WHO, AT THE AGE OF 95, STILL "CARRIES ON"

By E. T. W.

PART II*

WORK OF JUDGE R. M. AND DR. JOSEPH P. WIDNEY IN THE ESTABLISHMENT OF THE UNIVERSITY OF SOUTHERN CALIFORNIA, AND ITS COLLEGE OF MEDICINE



JOSEPH P. WIDNEY, M.D.
From a photograph, taken in his library.

THE distinguished brothers, Judge R. M. and Dr. J. P. Widney, acting on a suggestion from the former, having with others taken the initiative to found an institution of higher learning in Los Angeles, the State, in 1880, granted a charter for the University of Southern California; and five years later, the board of trustees empowered Doctor Widney to take steps toward the organization of a medical department of the university. The Doctor, therefore, on March 31, 1885, called together at his office in the Widney Building (erected in 1883, on First Street, on land now a part of the new City Hall ground), the first faculty, and formally established "The College of Medicine of the University of Southern California." Doctor Widney was elected dean of the faculty; and for ten years he filled that office, at the same time occupying the chairs of theory and practice of medicine, and medical Latin.

The first session of the college was held in a brick building, long standing at 447 Aliso Street, and there the work of instruction was carried on for several years. Doctor Widney owned the property, and he still owns part of it. There were no funds available for rent, and he allowed the college to use the property rent-free for the entire period except the first few months, when a number of repairs had to be made. The building had long been the residence of Don Louis Vignes, the owner of a very extensive vineyard and a producer of famous wine, who made his home upstairs in the second and third stories, and had a basement for his business below. With the building of the proposed Union Station, some of this property will be appropriated for a new street.

From the beginning, everybody associated with the movement was enthusiastic to create a medical college "equal to any in the United States"; and when once established, it soon went beyond many others in its requirements, since elsewhere such a course usually meant practically only five or six months of work, and then a supplemental term of less earnestness and efficiency. "I was told," said Doctor Widney, "'you will need to make the course lighter for the year in order to draw students.' 'No!' I replied, 'we will make it heavier.' I wrote to Harvard and the University of Pennsylvania, and secured their catalogues. Each was running a three-year course. Each year had nine months of work, divided into two terms—five months of solid work, and then four supplemental months, called the summer term. The work of this term was lighter and less earnest, and so was much neglected. Instead of that arrangement, we adopted and enforced a continuous term of nine months of unbroken, solid work, and this at once put the Los Angeles College in the front with the best medical schools in the United States. The result was shown in the standing of the graduates, as seen in a letter I received from a large city where some of our students had competed for positions as hospital internes. The examining board wrote to me: 'You have sent us the best-trained graduates that have ever appeared before us.' The rank of our college was thus established almost in its first year, and not in the United States alone, but in Canada as well." This was particularly gratifying to Doctor Widney, who himself had picked out his colleagues, and who, foreseeing that some day the financial needs of the institution might make it advisable to keep it free from affiliations, so held the school under his personal control that the appointment of the other professors was never confirmed by the university authorities. Nine students were the first graduates, forming the Class of '88:[‡] Charles P. Bagg, W. W. Beckett, Edward R. Bradley, Frank D. Bullard, H. Bert Ellis, Lula Talbot Ellis, P. J. O'Neil, W. C. Thiele, and Anthony C. Vallee. During his incumbency as dean, Doctor Widney often substituted for one or another of the professors, teaching in their absence, fortunately being able to instruct in any of the departments; and sometimes he gave as many as three one-hour lectures in succession. There was then no county hospital, and patients dependent on the county for relief were "farmed out" to the Sisters of Charity in their hospital. Free use of this hospital was had for clinical instruction, and there was also established a large free clinic at the College Building, affording all the clinical material that could be used.[§]

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† A Twenty-five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* Part I was printed in the April issue, on page 292.

Correction of typographical error in Part I. In the third last paragraph of the first column footnote printed on page 295 of the April issue, the year 1891 should have been 1871. The historical sketch to which reference was made was presented by the late H. Bert. Ellis in 1891.

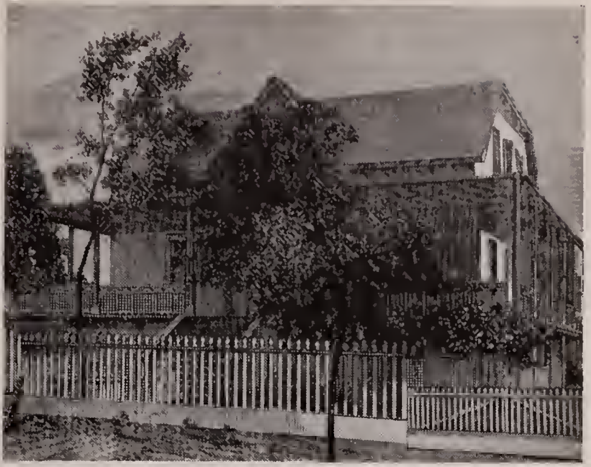

Fig. 1.—The first home (year 1885) of the College of Medicine, University of Southern California, at 445 Aliso Street, Los Angeles.

ACCEPTANCE OF THE PRESIDENCY OF THE UNIVERSITY OF SOUTHERN CALIFORNIA: PREVENTS FORECLOSURE ON THE UNIVERSITY PROPERTY

Doctor Widney remained dean until, on the death of President M. M. Bovard, the trustees of the university requested him to take the presidency, saying: "You will have to do so to save the university." He had, however, a lucrative practice, which it would be necessary to abandon, and so he said to the trustees: "Take a month to think the matter over; discuss it with the directors, and with business men of the town, and if everybody concerned is still of the same opinion, come back to me." They returned, and in their reiteration, he "recognized a call of the Lord"; he accepted the presidency, and was with the big work of construction and reconstruction for four or five years. Everything was in confusion; they were in the midst of the bank crash of '93, and no one knew what property the university had, or what it was worth. The professors had not been paid for months, and relief was not to be had through the banks, which withdrew credit. So Doctor Widney went out on the street and raised $15,000, giving his own personal security to back up the loans. Suit had already been filed to foreclose on the university property; but he

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[‡] Of this class, the late H. Bert. Ellis was later elected president of the California Medical Association, and for years served as one of the Board of Trustees of the American Medical Association. Dr. W. W. Beckett, still living, was also elected to the presidency of the California Medical Association, and continues in active work as chief of the medical department of the Pacific Mutual Insurance Company. The late Dr. Charles P. Bagg rose to high rank in the Medical Corps of the United States Navy.

[§] Editor's Note.—By mere chance, in looking up references in the minute book of the old College of Medicine of the University of Southern California, to which he had had no occasion to refer in years, the editor came across the paragraphs which are printed below.

From the minutes of the meeting of October 12, 1896:

". . . The committee on resolutions in regard to the resignation of Dr. J. P. Widney as dean of the College, reported and were discharged.

"Whereas, Joseph P. Widney, A. M., M. D., LL. D., one of the founders and continuously until now the dean of the College of Medicine of the University of Southern California has retired from the practice of medicine, and owing to imperative demands on his time in other directions, has tendered his resignation as dean; now, therefore, be it

"*Resolved*, That we, the members of the faculty of the College of Medicine recognize that Doctor Widney has been chiefly instrumental in maintaining the high standard of our college;

"*Resolved*, That as a fellow teacher and practitioner, we recognize in Doctor Widney an honorable gentleman, a thorough scholar and an unselfish friend;

"*Resolved*, That while we yield and accept his resignation, yet we hereby tender to him the titles of Honorary Dean, and Emeritus Professor of Medicine, thus perpetuating the history of his work with us and in some small degree expressing our appreciation of the same.

"H. Bert. Ellis, M. D.
"Walter Lindley, M. D.
"William L. Wills, M. D."

It is interesting to note that the report presenting the resolutions when Doctor Widney resigned as dean, was signed by three members of the California Medical Association, each of whom, in his day, had been president of the California Medical Association (Dr. Walter Lindley in 1890, Dr. William LeMoyne Wills in 1896, and Dr. H. Bert. Ellis in 1904).

The two other items are of equal historic interest, because the one tells how the College of Dentistry of the University of Southern California (now one of the largest dental schools of the United States) came into existence, and the other, how the Children's Hospital of Los Angeles (one of the notable institutions of its kind in America) was founded.

* * *

From the minutes of the meeting of July 9, 1897:

". . . The subject of the establishment of a Dental Department came up and was discussed by all present. It was moved and carried that the entire matter be referred to a committee consisting of Doctors Kurtz and the Dean [Widney] with power to act."

* * *

From the minutes of the meeting of August 3, 1901:

". . . On motion of Doctor MacGowan, Doctors Brainerd and Wills were appointed a committee to investigate the founding of a Children's Hospital, and to report at some future meeting."

* * *

Of additional historical interest concerning the part taken in medical organization work in California by the College of Medicine of the University of Southern California, is the fact that up to the present time every member of the California Medical Association who was ever elected to the presidency of the California Medical Association, and who resided in the city of Los Angeles, without exception has been either a graduate or a faculty member of the College of Medicine. The names of the twelve members of the California Medical Association who have been thus honored, with the nature of their college affiliation, is given below:

[*] Henry S. Orme, president in 1879; faculty.
[*] Walter Lindley, president in 1890; faculty.
[*] William LeMoyne Wills, president in 1896; faculty.
[*] H. Bert. Ellis, president in 1904; class of 1888; graduate and faculty.
Wesley W. Beckett, president in 1909; class of 1888; graduate and faculty.
George H. Kress, president in 1917; faculty.
[*] Henry G. Brainerd, president in 1923; faculty.
[*] Granville MacGowan, president in 1925; faculty.
[*] William T. McArthur, president in 1927; faculty.
William H. Kiger, President in 1929; faculty.
Joseph M. King, president in 1933; class of 1895; graduate and faculty.
Clarence M. Toland, president in 1935; faculty.
Edward M. Pallette, president-elect, in 1936; class of 1898; graduate and faculty.

[*] Deceased.

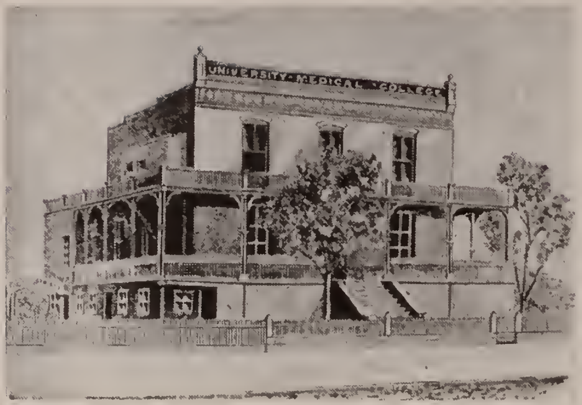

Fig. 2.—The original building of the College of Medicine of the University of Southern California (after it was remodeled in the year 1888).

paid the bills and got the suit stopped. From then on, every bill was paid when it came due, and every professor received his check at the end of each month.* Having sufficient private means that it was not necessary for him to continue practicing medicine, and not wishing to compete with the college professors maintaining such practice, Doctor Widney also discontinued active work as a physician and surgeon, and thereafter treated only a few of his personal friends. But his interest in educational work was not confined to the upbuilding of the University of Southern California; he consented to become a member of the Los Angeles Board of Education, and was president of that body for one or two terms. At the commencement of his service, there were but three school buildings in town; but with commendable foresight, he saw what was coming, secured a lot with a frontage of one hundred feet on Spring Street and running back to Broadway, between Fifth and Sixth streets (later known as Mercantile Place), and several other lots, one as far out as Brooklyn Heights. As proof of that wisdom, the Mercantile Place property eventually sold for a high price, making possible further expansion of the Los Angeles school system. As influential executive, Doctor Widney also favored the employment of a superintendent, and Dr. W. T. Lucky, an excellent pedagogue, was selected at a salary of $5,000, although that compensation was considered by many rather high for such services.

AFFILIATION OF THE MEDICAL SCHOOL WITH THE STATE UNIVERSITY

Speaking of the affiliation of the College of Medicine, of which he was the founder and guiding spirit, with the State University, as its Los Angeles Medical Department, Doctor Widney says: "When I was no longer dean of the School of Medicine, it became involved in financial troubles in trying to maintain its standards and broaden its work, and representatives of the faculty came to me; wherefore I told them what I had in mind for so long a time. At their request, I went north in company with Dean W. Jarvis Barlow and several of the professors, including Doctors H. Bert. Ellis, H. G. Brainerd and Granville MacGowan, to attend a meeting of the Regents of the University of California, and we asked that the medical school at Los Angeles be made a part of the state university system. The petition we presented was granted when the Regents agreed to take over the property of the College of Medicine and make an appropriation for its maintenance. Wishing, however, that all of our students of the past who had received degrees should also have as their alma mater the new mother, we effected in addition the provision that each graduate of the College of Medicine of the University of Southern California, duly certified by a specially appointed Alumni Committee,* should be listed as an alumnus of the University of California." This affiliation took place in the year 1909, the Los Angeles Medical Department carrying on undergraduate courses through 1914, after which time it offered courses only to medical graduates.

PROPAGANDIST FOR THE PORT OF SAN PEDRO

The practice of his medical and educational work for years demanded the major part of Doctor Widney's attention and time; but through these very activities he aided in advancing numerous important movements, and someone has well said of him that "he was a zealous promoter, for several decades, of every public enterprise in Los Angeles." And by no means alien to his interest and sympathy were the great industrial projects of the Pacific Coast. From the time, for example, when he spent several weeks at Drum Barracks on his way into Arizona from San Francisco, Doctor Widney found the harbor at Wilmington (now the inner harbor of Los Angeles) and its problem of development worthy of special study. There were only eighteen inches of water on the bar at low tide. Calling together a meeting of the merchants of Los Angeles, he placed before them a statement of what was needed, and a resolution requesting the Government to take steps for the improvement of the harbor. This was forwarded to Washington and the work was commenced.

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* From a 112-page booklet entitled "Six Collegiate Decades, The Growth of Higher Education in Southern California" published in 1929 by the Security-First National Bank, are taken these interesting paragraphs:

"For three months in the winter of 1887 Los Angeles real estate sales averaged over $12,000,000 per month. Eighteen months later land could not be given away. The inescapable collapse, after the peak of the boom inflation in 1887 had passed, fell upon the infant colleges of the Southland with staggering effect. In common with Pomona and Occidental, the University of Southern California passed through a heart-breaking period of financial depression which reached its darkest days in 1893. . . .

"On December 30, 1891, President Bovard died. With finances in a precarious state and the administrative system almost completely shattered by his death, the University of Southern California faced the great crisis of its existence.

"It was a physician who proved to be the man of the hour to heal the university of these blows. Under the vigorous and cheerful leadership of Dr. J. P. Widney, a brother of the founder, the drooping spirits of faculty and students were revived. The University of Southern California reversed its policy of extension and expansion, and entered upon an earnest program of concentration and centralization." . . .

"But the idea of the university had been born several years before, in the mind of Judge Robert Maclay Widney, a pioneer of 1868. After the death of Reverend Tansey in 1876, it remained for this man to take the leading rôle in the unfolding events that made his early dream of a university in Los Angeles come true."

* The chairman of the Alumni Committee was Dr. William R. Molony, class of 1901, who for a number of years has been and still is president of the Board of Medical Examiners of the State of California.

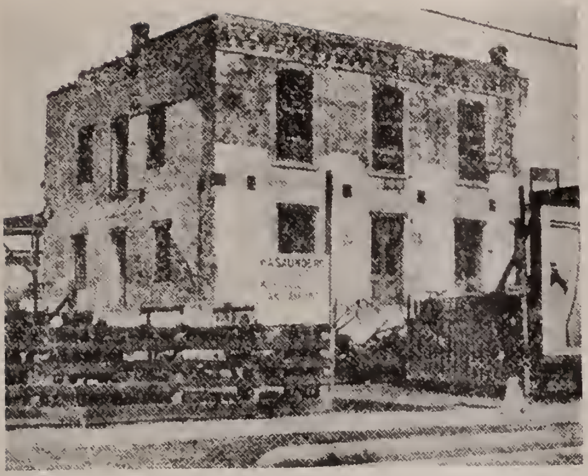

Fig. 3.—The original building of the College of Medicine of the University of Southern California (as it appeared in 1927).

The Los Angeles *Record*, December 13, 1927, printed the illustration, reproduced in Fig. 3, with comments as follows:

"Time has played a queer prank upon the old University of Southern California 'medical school,' 445 Aliso Street.

"Where once the voices of dignified professors instilled scientific knowledge in the minds of would-be physicians, the mournful 'hee-haw' of several hundred mules reverberates today.

"For more than twenty-five years the medical college building has housed the offices of W. A. Saunders' mule market—the largest in the southwest, says 'Jim' Conner, local manager.

"From these offices more than 1,500 work animals are rented over Southern California, Arizona, New Mexico, and Nevada.

"The mules are held in corrals around the building, which was built nearly a half-century ago, Conner estimates, out of brick brought to Los Angeles by sailing vessels around the Horn.

"The words, 'Medical College,' are still dimly visible above the front door of the building facing Aliso Street.

"Classrooms are now filled with mule harness. The mule market land and building are owned by Dr. J. P. Widney."

(The site of the old medical college is now a part of the grounds of the new Union Passenger Station of Los Angeles.)

Each year, too, Doctor Widney prepared papers to be placed before Congress requesting appropriations to continue the work. The depth on the bar was gradually increased to eleven feet at low tide, with an inner depth of some twenty feet. Seeing the need of a far vaster work, he wrote to Senator Leland Stanford in Washington requesting him to secure a survey appropriation for the building of a breakwater to take in the deep water of the outer roadstead. The Senator replied that he had handed the letter directly to the Secretary of War, who said that, without waiting for congressional action, he would give the required order. The survey was made and an appropriation secured for beginning the construction of the breakwater, and thus was assured the great outer harbor of Los Angeles, with fifty feet of water at low tide and no bar. This harbor, known as Port Los Angeles, now ranks second only to New York in its annual shipping.

PROPONENT OF STATE OWNERSHIP OF HARBOR TIDELANDS

Quite as interesting was Doctor Widney's association with the great fight to restrain the Huntington railroad interests from claiming the state tidelands of the harbor, under pretense that they were originally "corn land," and that the company merely wished to reclaim the marshy area as such for the benefit of the public; for again Doctor Widney's early experience as a soldier came to the rescue of what so rightfully belonged to the people. While stationed for six weeks in 1867 at Drum Barracks, before setting out for Arizona with the wagon trains, the ever-inquiring surgeon had made himself familiar with every foot of the coast there; and when the famous land case came up in court, he asked to be allowed to take the stand. He then told how the military had landed goods from lighters right up to the Quartermaster's building on the West Basin, and that there were inclined shipways (just where the railroad company located their so-called "corn land!") on which he had seen with his own eyes ocean-going vessels being repaired; and that if the judge would go down there, and pull aside the weeds, he would himself discover what was left of the shipways! And that is what a visit to the site of the old shipways revealed.

BELIEF IN GEOGRAPHICAL AND POLITICAL DIVISION OF CALIFORNIA

A man of keen perception, there is little wonder that many years ago Doctor Widney also led in a movement for political division of the State of California; and we have his own account of what, at the time, attracted wide attention, and has since been frequently debated, pro and con. "I issued a call for the meeting," he says, "which was attended by representatives of various Southern California counties, and the records of this session of two or three days are still in my possession. A committee of distinguished attorneys was appointed, and this committee reported that the State, at the time of its admission, was already practically divided, for provision was then made that, whenever the people wished it, a division of the State into two parts could be made. Notwithstanding, however, it was so provided, that no vote need be taken upon the issue, the convention decided that our movement was premature—the time was not ripe for the step. I think that the postponement was a great mistake, and I am still in favor of such a subdivision, and into four parts, according to the harbors available: (1) Southern California, which would have Los Angeles Harbor and San Diego Harbor; (2) Point Harford at San Luis Obispo (a cut through the mountains bringing the lower San Joaquin Valley to the ocean); (3) North Central California, with San Francisco Bay, and that city as the capital; and (4) another division, centering around Eureka or on Humboldt Bay. That my views are sound was confirmed by a conversation with an eminent senator from the East, who expressed the opinion that Californians, with a coast line of more than eight hundred miles, and yet allowed only two senatorial votes (or no more than are given to little Rhode Island), are very foolish in not insisting upon a redivision, and, therefore, a new and better representation. Such a division into four parts, as I proposed in the February, 1881, issue of *The Californian,* would give us eight senatorial votes; and this division will surely come—only just wait! For the same reason, I believe that the day is not so far distant when both Oregon and Washington will insist on a similar redistribution, with the mountains dividing the east and west portions, based on the need of a fairer representation." Continuing, Doctor Widney said: "As you will recall, I founded, with Doctors Lindley and Joseph Kurtz, just about fifty years ago (or two years before I coöperated in organizing the Southern California Medical Society*), the *Southern California Practitioner,* a journal that we all thought was needed as a medium of intercourse between the members of our medical profession in the South; and during the period when I was one of the editors of the first few volumes, we touched upon this matter of a recognition of at least two Californias, and not merely one. In possibly the initial number, I wrote: 'Distance, rugged, intervening mountains, and entirely diverse commercial and industrial interests, which are making of California two separate and distinct sections, have also, in a great measure, prevented a close union of the medical profession. Southern California has developed its own intellectual life, and its own educational system; and we believe that the time has come for the establishment of its own medical journals and societies.'

BACK TO THE LAND

"However we agree or disagree on this matter of state division, a study of the conditions may lead to the focusing of attention upon another problem, the tendency for people to congregate too much in cities. Born in the backwoods, as a youth, and long before the Civil War, I helped to fell trees and clear the land and create a new civilization in the Ohio Valley. And again, in the Arcadian life of earlier California, in the sixties (when, for a while I went into the desert country), I saw the advantage of living close to the soil. Long before there was a chamber of commerce, I planned and labored for a great harbor at San Pedro—was that the work of a visionary? And am I visionary when I say that again the cry must be sounded: 'Back to the land, or perish!' I know that it is natural for people to congregate in the interests of trade, education and religion; but with such crowding and overcrowding come the greatest of problems having to do with human health and happiness. Is it not time, then, to ask whether Los Angeles and other great cities are not already big enough?—whether they should not stop packing people so closely together?"

AS AN AUTHOR

Not at all discouraged, when, in the long ago at the Piqua, Ohio, high school his essay on the question, "Is Civilization a Failure?" scared the conservative faculty—which hastened to award the grand prize to another, more orthodox student who had written upon some such subject as "The Goodness of Being Good!"—Joseph Pomeroy Widney believed in himself as one having a natural bent for literary work; and, as the years went by, he continued to prosecute such studies and exercise in connection with the practice of medicine. Possibly his earliest appearance in print of note after his arrival in California was his contribution to *The Overland Monthly* (Vol. X, January, 1873, page 44), of the article, descriptive of "The Colorado Desert," already mentioned,[†] in which he discussed both the possibility and the undoubted wisdom of reflooding of the dry Colorado basin; and three years later, with Don Juan Warner, of Warner's Rancho, and Judge Benjamin Hayes, founder of the Hayes Historical Collection in the Bancroft Library, he wrote and also edited the so-called "Centennial History of Los Angeles," published in 1876 by a patriotic public committee; a pioneer item, and one of the first from a Los Angeles press, considered by noted historians a real boon, and by collectors of Californiana, a treasure. Again, as previously described, he collaborated with his friend, the late Dr. Walter Lindley, in producing a very informative, illustrated guide to the "California of the South" worthy, as an introduction to the "American Italy," for comparison with the best work of Nordhoff or Ross Browne. "The Lure and the Land," later written to preserve the local color of the California he first knew; the more autobiographical "Three Americas," and the scholarly work on the "Race Life of the Aryans" (an exhaustive study alone probably justifying the conferring, by Miami University, of the honorary LL.D. degree), are only some of the more recent volumes from this author's well-stored mind and versatile pen; while "Life and Its Problems, as Seen by a Blind Man at Ninety-five," just begun, reminds one all too sadly of the great tragedy darkening the latter years of this genial, inspiring soul. A fairly complete list of Doctor Widney's publications would, therefore, include the following:

"Race Life of the Aryan Peoples," in two volumes, 698 pp., New York, 1907: Funk & Wagnalls Company.

"The Lure and the Land," 190 pp., Los Angeles, 1932: Pacific Publishing Company.

"The Genesis and Evolution of Islam and Judaeo Christianity," 238 pp., Los Angeles, 1932: Pacific Publishing Company.

"The Faith That Has Come to Me," 269 pp., Los Angeles, 1932: Pacific Publishing Company.

"Whither Away?" 152 pp., Los Angeles, 1934: Pacific Publishing Company.

"The Three Americas," 306 pp., Los Angeles, 1935: Pacific Publishing Company.

Private editions were also issued of other literary efforts, such as the three essays making up "The Way of Life," 152 pages, published in 1900; "Ahasuerus: A Race Tragedy," issued in 1915; "Via Domini," put out in 1903, and "All Fader," which appeared in 1909. From Doctor Widney's pen, too, have come a large number of pamphlets, and magazine and newspaper articles upon various topics—industrial, racial, scientific, climatic, professional, historical, political, and educational—some treating of harbor work, and national and religious issues; and he has now in press, to be issued by the same Los Angeles publishers, a volume of promise entitled, "Race Types and Race Religions."

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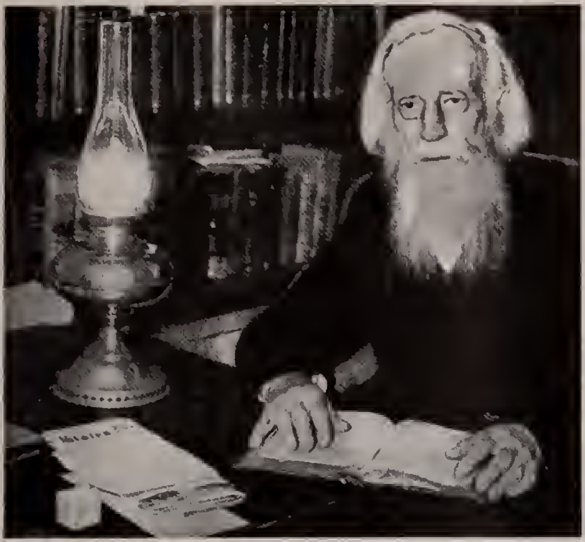
* Note.—For many years, the Medical Society of the State of California was practically a state medical society for the region north of the Tehachapi, and the Southern California Medical Society was a similar organization, but with a more localized name, to cover the counties south of the Tehachapi.

[†] See April issue of CALIFORNIA AND WESTERN MEDICINE, page 295.



Reproduction of an illustration in the Los Angeles *Times* Magazine of April 19, 1936. The legend in *Times* Magazine was as follows:

"Dr. Joseph P. Widney, at 94 years of age, who, on top of a full life, developed marked musical talent after his seventieth birthday, and who has written several books following his eightieth birthday, and is still active. Under an old age pension plan he would have been retired, living on the labor of others, for the past thirty-four years."

Note.—The illustration was used in an article entitled, "Will the Aged Rule America?" by Marjorie van de Water, the opening paragraphs of the article being appended hereto as a footnote.*

A WELL-SPENT AND STILL ACTIVE LIFE

Twice married—in 1869, to Miss Ida D. Tuthill, and, after her death, in 1882 to Miss Mary Bray—and knowing, for the most part, only domestic happiness, Doctor Widney has resided for years in a stately country mansion on Washington Hill, so delightfully old-fashioned that oil lamps still furnish the only artificial illumination; near which is the Mission Bethel-El, built and maintained at the Doctor's own expense as a free "Church of the All-Father," wherein on each Sabbath morning, for many years, he has led the religious services, making more undeserved, it would seem, as it was so unexpected, the ill-fate that suddenly crossed his path and laid him low.

But let the never-faltering octogenarian tell of the terrible incident in his own words of simple fortitude: "In the year 1929 an automobile accident left me with a fractured skull, fracture of the cervical spine, several broken ribs and some injuries of the skull, leading to blindness and defective hearing, with severe and continuous pain about the base of the skull which, even yet, has hardly ceased. Nevertheless, during this time I have done much of my heaviest, literary work, besides attending to general business and church duties. But even blindness and physical disability have their compensations. The long hours of darkness and of enforced silence give time for reflection and a careful review of life, its activities, and of the mighty past of the ages which, otherwise, would have been missed. Much that I have written in the books of these later years might never have been carefully thought out, and for even this blindness and silence I have learned to thank God. It was part of the schooling. His will be done! *Etiam Domine, Ad Te levabo oculos caecos!*"

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* "Will the government budgets and tax programs of the future be dictated by an old age lobby?

"Will the United States be run by men and women past the retirement age, who hold power by their clutch on the purse-strings of the nation?

"Will the old-age pension, started as means of lifting the dark shadows of poverty from the twilight days of America's aged, prove to be an 'Old Man of the Sea,' growing into a crushing burden on the backs of the producers of the nation?

"These are some of the questions raised by new predictions based on statistics of the population.". . . .

CLINICAL NOTES AND CASE REPORTS

METHEMOGLOBINEMIA

RESULTING FROM ADMINISTRATION OF BISMUTH SUBNITRATE

By J. S. Hayhurst, M.D.
Redlands

The possibility of producing methemoglobinemia in children, through the administration of bismuth subnitrate, has frequently been pointed out. Harold E. Roe,[1] with a forceful article, brought particular attention to this point in connection with the common use of this drug in treating the diarrheas of infants and children. Most practitioners realize the possibility of producing a condition of methemoglobinemia with acetanilid or acetphenetidin, but they are still overlooking bismuth subnitrate. Since it is the nitrate radicle that is injurious, and since bismuth subcarbonate is just as effective, the latter drug should be employed.

REPORT OF CASE

A one-year-old female Mexican child was seen at 2:30 p. m. on July 23, 1935, because of cyanosis, air hunger, and a feeling of impending death in the mind of the mother. The brief history elicited at first revealed that the child had not been ill, but had been put to bed for its usual nap at about 11 a. m. On the child's awaking, the mother noted this frightening condition; the pulse rate was too rapid to count. Even with the stethoscope, the examiner could only guess at a rate of 200; respiration rate was 50 to 60; temperature, 99.4 R; hurried examination of the chest revealed no abnormal sounds. The mother was then queried with reference to administering some type of medicine, and she admitted having given the child a teaspoonful of bismuth at about 10 a. m., because of "mucus in the throat." Later it was learned from the druggist who sold the drug that it was straight bismuth subnitrate. A diagnosis of methemoglobinemia was made, and the child taken to the hospital and put into an oxygen tent. The intestinal tract was emptied with enemata and saline cathartics, while the child was given oxygen. She improved considerably in a few minutes, so that at 3:30 p. m. her pulse was countable at 160, and respirations 44. Blood examination at entry yielded a 12 per cent methemoglobin content by colorimetric method. This determination was done quickly, using the materials we had at hand, and there is some doubt as to the accuracy of the percentage. By 7:30 p. m. the pulse rate had dropped to 134 and respirations to 34; at 11 p. m. the findings were 128 and 26. At 11:40 p. m. the child had returned to a normal appearance, so that she was removed from the oxygen tent. She was discharged from the hospital the following morning, and has remained well to date.

Medical Arts Building.

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[1] Roe, Harold E.: Methemoglobinemia, Following Administration of Bismuth Subnitrate, J. A. M. A., 101:5, p. 352 (July), 1933.

THE OCCLUSIVE DRESSING IN THE TREATMENT OF IMPETIGO CONTAGIOSA

By Franklin I. Ball, M.D.
Los Angeles

A RECENT article gave the results of the treatment of impetigo contagiosa by means of the already well-recognized principle of the occlusive dressing.

As all must agree, of all skin diseases impetigo contagiosa must be given the premier position, not only for its highly infectious and contagious nature, but also for its widespread development in all ages and classes of patients. Because of these qualities, it is the cause of great economic consequence: among adults, in loss of working time and the cost of medical care; and among children, in the loss of school attendance.

The many remedies advanced for the treatment of this condition is strong evidence that none have been found to be entirely satisfactory. It is for this and the above reasons that any form of treatment, which is more efficient and effective than the existing methods, is indeed to be welcomed and given serious consideration.

As brought to my attention by the representatives of a commercial organization whose product is an elastoplastic appliance, well suited to requirements for an occlusive dressing; J. L. Newman,[1] in 1933, reported his treatment of fifty cases of impetigo with occlusive dressings alone. These results are summarized as follows:

Fifty cases were treated from first to last with this method. Total time lost was 486 days, giving an average of 9.7 days required for a cure per case. The longest time required was nineteen days; the shortest, five days. One case formed a subcutaneous abscess.

The technique of treatment was the application of the flexible, elastic, adhesive, cut to a well-fitting size and shape, covering the lesion well beyond its borders. The lesion was not touched in any other way. Crusts, if present, were left *in situ;* superficial pustules were not opened and the adjacent skin was not cleansed. Some selection of patients had to be employed. There were situations, such as lip edges, where no dressing could be conveniently applied, also where certain patients could not be trusted to leave their dressings alone.

Feeling that the results reported by Newman were encouraging enough to warrant a trial, and following his technique in general agreement and with only minor material changes, a series of patients were placed under treatment with occlusive dressings, of which a total of sixty-four cases were followed to completion and are herein reported.

Of the sixty-four cases thus treated, it is to be noted (see Table 1) that the total number of days to cure all cases was 737, which gives an average of eleven and five-tenths days for cure per case; that one case required twenty-three days' time for a cure; that three cases required three days for a cure, and that twenty-six cases (40.6 per cent) were cured in eight days or less; while twenty-two cases (34.3 per cent) required from fourteen to twenty-three days to be cured. No subcutaneous abscesses were formed in any of these cases.

Table 1.—*Results of Treatment in Sixty-four Cases Treated with Elastoplastic Occlusive Dressings*

Number of days to cure	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Number of cases	4	3	4	4	4	7	2	6	1	5	2	3	0	4
Number of days to cure	17	18	19	20	21	22	23							
Number of cases	2	3	3	1	4	1	1							

Total number of cases, 64.
Total number of days to cure, 737.
Average number of days to cure, 11.5.
Patients cured in eight days or less, 26 (40.6%).
Patients cured in fourteen days or more, 22 (34.3%).

COMMENT

A study of these resultant figures shows comparable agreement with those of Newman's previous report. It was of notable interest to the author to observe that one group of cases obtained a considerably shorter cure than did another group. A recheck of the cases in two groups brought out the fact that in most of the cases in the former group the lesions were small in size, less severe in character, and the patient had begun treatment early in the development of the lesion, whereas in the latter group it was found that the lesions were large, severe in nature and of long duration. In these latter cases it became usual to observe that, because of the sizes of the lesions and the angular or curved surfaces to be covered, the elastoplastic adhesive dressings became impracticable to apply. During the progression of the treatment of the cases, the observation of the limitation of the spread of exudative secretions from one site to another on the patient's skin, and the seemingly resultant limitation of the spread and development of new lesions on the patient's skin and the skins of other members of a patient's household, inclined toward the belief in the principle of occlusion and non-interference in the treatment of simpler cases of impetigo contagiosa.

CONCLUSIONS

1. Sixty-four cases of impetigo contagiosa treated by occlusive dressings are reported in which twenty-six (40.6 per cent) were cured in less than eight days, twenty-two (34.3 per cent) were cured in from fourteen to twenty-three days, while the average number of days required to cure a case was eleven and five-tenths days.

2. These results evidence considerable advantage in the use of occlusive dressing in cases of impetigo contagiosa in which the lesions were practicable of application of such dressings.

3. Recommendation for the use of occlusive dressing is made wherever the instances occur in which these applications are practicable.

6253 Hollywood Boulevard.

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[1] Newman, J. L.: Brit. Med. Journal, 1:823-824 (May 13), 1933.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

ECLAMPSIA

ETIOLOGY

J. Carl Cummings, M.D. (202 Professional Building, Glendale).—Eclampsia may be defined as a culmination of a toxemia occurring in a pregnant woman, and usually accompanied by convulsions.

Convulsions not necessarily are the accompaniment of the eclamptic state, as inhibited cases of eclampsia have occurred in which convulsions were absent; and it is possible for convulsions to occur in pregnancy parturition, or the puerperium, and they may be due to other causes than eclampsia.

An interesting sidelight on the incidence of eclampsia in Vienna was written by Dr. Walter Schiller of the Kermanner Clinic, that during the years from 1914 to 1919, or over a five-year period in which more than 35,000 cases were delivered at the Kermanner Hospital in Vienna, there was not one case of eclampsia recorded. During this five-year period the patients were without meat of any form, except soup which was prepared from human bones from the soldiers which were slain on the battlefields of the Great War. He also stated that they had many cases of eclampsia following the five-year period and many previous to the five-year period.

Pituitary as an Etiologic Factor.—Theobold states that the syndrome of eclampsia could not be explained by postpituitary hyperfunction of the posterior lobe of the hypophysis. Moreover, the hypophysis leaves unexplained the fact that the patient suffering either from the nephropathy of pregnancy, or from eclampsia, almost invariably suffers from a true retention of chlorid and constipation. . . .

At the International Congress (1913), H. Tweedy suggested that ordinary food became poisonous during pregnancy; and when in this condition it gives rise to toxemia and eclampsia. He was led to such conclusion by noting the recurrence of fits in women who had partaken of food even in small quantities. It was evident that the bad effect was not produced as a result of decomposition or irritation within the intestines, for it followed very rapidly after ingestion.

He now explains how pregnancy acts as a contributing cause: The antibodies in the blood not only guard against pathogenic bacteria, but also deal with food particles after they have entered the blood, and are thus concerned in the later processes of digestion. Badly developed or absent in the new-born, they soon become active, stimulated by an antigen richly present in colustrum and the early food. Though far in excess of normal requirements, they are not unlimited. This is proved by the sickness which may follow ingestion of some unwholesome article of food or drink, and such dissimilar complaints as migraine, epilepsy, and chronic Bright's disease, will probably be found to depend on a deficient antibody reaction.

The antibodies during pregnancy are called on to fulfill a double rôle besides their normal work; they are compelled to deal with the albumin which is constantly exuding into the maternal blood from the ovum. The presence of the ovum protein is abundantly proved by the Abderhalden test, and the effect of this toxin is noted through all the degrees of toxemia. . . .

Eclampsia viewed from the above standpoint is seen to be as certain in its etiology as any other medical complaint, for the theory is in accordance with every fact known to the practical obstetrician. . . .

It is the belief of B. C. Hirst that the origin of the toxins of eclampsia is mainly in the fetal body, and to a less extent in the placenta. He states that the adult body has enough to do to take care of the incineration, oxidation and elimination of the products of its life processes. When the waste products of the fetus and the placenta must be taken care of, it is no wonder that overburdened organs break down. This is all the more likely when a heavy protein diet and inactive and sluggish bowels increase the work.

W. Poten does not believe that the cause of eclampsia lies in the placenta, because, aside from eclampsia which occurs in the puerperium, it is hard to explain why the mother and not the child should be affected by an organ which nourishes the latter. Against the theory that a toxin is the cause of eclampsia, stands the fact that so many eclamptic patients recover with remarkable rapidity. . . .

In 1914, Young suggested that the poison was elaborated during the early disintegration of a piece of placenta whose blood supply had been cut off. . . .

Symptoms.—The writer's experience in eclampsia cases occurred between the eighth and ninth month of gestation, and the signs and symptoms of preëclamptic toxemia were recorded between the fifth and seventh month of gestation.

The symptoms preceding the toxemia are albuminuria, and usually increased systolic blood pressure, slight edema, headaches, jaundice, flatulence and epigastric pains. Later symptoms are excruciating headaches, marked edema, twitching of the muscles of the arms and legs, epigastric pains of a violent character, albuminuric retinitis, convulsions, and coma.

Increasing percentage of nonprotein nitrogen retention in the blood stream is certainly an index as to the severity of the eclampsia. . . .

The persistence of deep breathing after convulsions is a sign of persisting intoxication, and the appearance of dyspnea is a very unfavorable prognostic sign.

Constitutional Peculiarities in Eclampsia.—In eclamptic patients certain constitutional characteristics are found, namely: small stature, large pelvis, and great body weight. The majority of eclamptic patients are young, and about 50 per cent are not over twenty-five years of age. . . .

* * *

PATHOLOGY OF ECLAMPSIA

DANIEL G. MORTON, M.D. (University of California Medical School, San Francisco). — The changes produced in the body by eclampsia are numerous. Many of them have been considered as the responsible factor in the production of the disease: first, the changes in the kidney were incriminated, later the liver necroses were considered as the etiologic factor, and more recently, the disease has been attributed to changes in the posterior portion of the pituitary gland. The truth of the matter is that the etiology still remains obscure, no proof ever having been obtained that the changes in any one organ are responsible. Gradually the conception that the pathologic findings in the various organs are *all* due to some toxic agent circulating in the blood has gained ground. At the present time, this is the most universally held view. The nature of the toxic agent we do not know, but there is increasing evidence to show that it is one or several split proteins fractions, possibly coming from breakdown of placental tissue. A discussion of the etiology of the disease appears elsewhere. I merely want to make clear here the conception which most rationally explains the pathologic findings in women dying of eclampsia, namely, that the various metabolic and structural changes observed constitute a series of events first set up by the circulation of a toxic agent in the maternal blood. All structural changes may not be directly due to this poison; many may be secondary to aberrations in metabolism and function first set up in other organs by the toxic agent. For example, the toxin may increase the permeability of capillaries, which in turn may lead to thromboses and, thus infarcted, necrotic areas, which may in turn seriously alter the function of the particular organs in which they have occurred.

Death from eclampsia may result in a variety of ways. There may be cerebral hemorrhage, or fatal hemorrhage from other organs. There may be marked cerebral edema, a "wet brain," so that the function of the vital centers is interfered with; or there may be such marked pulmonary edema that death results from asphyxia. Death may be due to marked cardiac damage in the form of thromboses and consequent necroses, or death may be essentially a uremic one because of extensive renal necroses. Thus, there is no characteristic cause of death. Generalized edema is common, as are effusions into the various body cavities. Hemorrhages and thromboses are common, may be found anywhere, as in the skin, eye, brain, heart, liver, lungs, kidneys, adrenals, etc. The blood is dark and does not clot readily. The widespread extent of hemorrhages and edema, with consequent necroses, suggests a marked increase in capillary permeability, and in the make-up of the blood itself, so that it more easily escapes from its vessels.

The most characteristic pathologic findings in women dying of eclampsia are located in the liver and kidneys, though definite alterations are usually found in the brain, heart and lungs also.

Liver.—On gross examination, the liver surface may present irregular hemorrhagic areas, giving to it a mottled appearance. On section, patches of light and dark may be seen. Microscopically, the mottled appearance is seen to be due to necrotic areas characteristically situated at the periphery of the individual lobules. These areas may contain blood cells, or may be so necrotic that structural components cannot be distinguished. In some instances, there may be a general autolysis of liver cells. The necroses were thought by Schmorl to be due to degenerative changes following thromboses of the smaller portal vessels. He, as well as many subsequent observers, such as Williams and Opie, have considered these areas of perilobular necrosis as characteristic of eclampsia. Schmorl found them in seventy-one of seventy-three autopsies, and Williams has found them in every case he has examined. The modern view is that, when present, they are characteristic, but that they are not always present. The extent of the pathologic process in the liver cannot be related to the number of convulsions which the patient had before death.

Kidney.—The kidneys are usually normal in size, anemic, may present punctate ecchymoses. The capsule is not adherent. The extent of the pathologic process varies—in some it is very marked, in others, slight. The findings are degenerative changes in the epithelial lining of tubules and of vessels. Cells are swollen, disintegrated. There is cloudy swelling and often fatty degeneration. Thromboses of glomerular vessels are common. Renal changes of some degree were found by Prutz in 361 of 368 autopsies, and by Schmorl in all but one of seventy-three autopsies. In 139 autopsies, Pollack found kidney involvement in 98 per cent. Some of the earlier observers considered the renal changes as characteristic and causative. This view has been abandoned because the lesions are often of such small extent.

Dilatation of ureters and kidney pelves, pyelitis and cystitis have often been found and, indeed, death has been attributed to the latter; but these findings are usually of secondary importance.

Brain.—Edema, areas of softening and necrosis, and thrombosis of smaller vessels are the lesions commonly found in the brain. Few are without any findings. Schmorl found thrombosis and softening in fifty-eight of sixty-five autopsies, while Prutz noted edema and hyperemia in every second or third case. Apoplexy has been described in a number of instances. To the brain changes have been ascribed the convulsions which are so commonly a part of the disease.

Heart.—The heart chambers are likely to be filled with dark, viscous blood which does not clot readily. Thrombosed vessels, necrotic areas, areas of fatty degeneration, may be found.

Lungs.—There is usually marked edema and congestion. Hemorrhage and thrombosis of the smaller vessels are common findings. Pneumonia due to aspiration of material is occasionally a prominent feature. Giant cells may be found in the lung capillaries. These cells are thought to be placental in origin, and at one time the deportation of placental elements in the maternal circulation was held responsible for the disease. However, since this has often been demonstrated in pregnant women dying of some other condition, the phenomenon has lost significance as an etiologic factor.

Eyes.—Edema, more or less diffuse retinal hemorrhage, and occasionally detachment of the retina have been described. The latter condition is thought to occur during convulsions.

Placenta.—Red infarction of the placenta of considerable extent has often been found. Indeed, it is thought by many that infarction of the placenta with the absorption in the maternal circulation of the resultant protein split products is the primary cause of the disease. However, infarction of severe degree is not infrequently found in the absence of toxemia. For these reasons it is felt by many others that infarction, like all the other lesions found, is a result, not the cause of the toxemia.

* * *

TREATMENT OF ECLAMPSIA

Emil J. Krahulik, M. D. (1680 North Vine Street, Los Angeles).—When a patient develops convulsions during pregnancy, she becomes a problem of major importance. The diagnosis of eclampsia may be readily confirmed by finding albumin in a catheterized specimen of urine, and an elevated blood pressure.

Once a convulsion has occurred the preconvulsion classification is of little importance, as the general management is the same for all groups. The treatment may be considered under three heads: (1) Sedation. (2) Reduction of toxemia. (3) Termination of the pregnancy.

Sedation.—It is absolutely imperative that the patient be in a darkened room, with a nurse constantly in attendance. Exciting stimuli must be minimized, especially noises, visitors, examinations, treatments, etc.

In the Los Angeles General Hospital, magnesium sulphate intravenously continues to give satisfactory results. Twenty cubic centimeters of a 10 per cent solution is given intravenously every hour for three doses, and thereafter every four hours, if the blood pressure continues above 150, or after each convulsion if they are occurring more frequently.

When the convulsions recur at intervals of one hour or less, the magnesium sulphate may not seem adequate, and morphin, grain one-quarter, should be given hypodermically in addition. The morphin should be repeated if another interval is shorter than one hour. Morphin will not have much, if any, effect on urinary secretion, as is sometimes feared. Concurrently with the magnesium sulphate and morphin one of the barbiturates might be given at regular intervals to promote general relaxation (sodium amytal, three grains, or nembutal, one and one-half grains, every four hours). If the patient is unconscious, a double dose may be given in a rectal suppository every six hours.

Occasionally convulsions will continue to recur in spite of sedation, and the disease seems to be out of control. Sometimes we shall find that the patient is in labor, and that will precipitate convulsions. If this exciting item is not present and the convulsions continue to recur, the situation becomes more tense. For such situations a phlebotomy is suggested. This should be postponed until one is ready to withdraw enough blood to bring the blood pressure to about 100 systolic (approximately 1,000 cubic centimeters).

Reduction of Toxemia. — Efforts to increase elimination by gastric lavage and high colonic irrigation are, at best, of doubtful value. Too often convulsions are precipitated by these procedures. Diluting the toxins with fluids and increasing the urinary output are desirable.

When the convulsions seem to be under control, if the patient is not too restless, dextrose solution may be given intravenously. If much edema is present, 300 cubic centimeters of a 25 per cent solution is given; but if the edema is not marked, a larger quantity (700 to 1,000 cubic centimeters) of a 10 per cent solution is preferred. It must be given slowly so as not to embarrass a heart already under strain. The dextrose solution should be repeated at eight-hour intervals. In the absence of blood chlorid determinations, the third flask should be combined with normal salt solution.

After consciousness has been regained, water and alkaline drinks may be offered by mouth.

Termination of Pregnancy.—The mortality rate in eclampsia has declined steadily since delivery by accouchement force was discontinued. A patient cannot stand the strain of the convulsions plus the shock of a mutilating delivery. When the patient has passed the crest of the toxemia, as evidenced by the cessation of convulsions, return of consciousness, urinary secretion, and a normal pulse rate, termination of the pregnancy may be considered. It becomes imperative when the blood pressure begins to climb, suggesting a return of the eclamptic state.

Induction of labor may be attempted by giving two ounces of castor oil. Some caution against the use of quinin in eclampsia. A hot enema is given four hours after the oil. Then, if the cervix is soft, effaced, and partly dilated, the patient may be taken to the delivery room and the bag of waters broken, allowing some of the fluid to escape. Some observers claim beneficial effects for the eclampsia, and induction will be more prompt. Rupture of the bag of waters is followed by intranasal application of pitocin (one-half cubic centimeter), which is removed as soon as contractions are initiated. If the cervix is firm and not dilated, there may be some uncertainty about labor starting promptly, and it may be wiser to apply pitocin intranasally without rupturing the bag of waters.

Many prefer to induce labor by using a Voorhees bag. In a multipara, it can be inserted very easily, often without any anesthesia, and usually starts labor promptly. In a primipara with a firm cervix, bag induction is discouraged. In the primipara it will prove wiser to continue observation until the cervix has softened; but if in the meantime the blood pressure begins to rise, delivery may be effected by cesarean section under local, spinal or gas anesthesia.

Labor should be made as comfortable as possible without interfering with the dilatation of the cervix. The second stage should be terminated with forceps, as the bearing down effort might precipitate additional convulsions or a cerebral hemorrhage. Convulsions have been induced by expressing the placenta when the patient was not asleep.

Postpartum Management.—Because the convulsions have been controlled and the baby safely delivered, our duty to the patient has not been fulfilled. Considerable damage to the kidneys and other organs has taken place, and opportunity must be allowed for regeneration.

Complete physical rest must be permitted until the blood pressure has returned to normal, and the albumin has disappeared from the urine. More efficient kidney rest is procured when the patient remains on a diet of milk and fruit juices for about one week, or longer if the albumin persists. Then articles high in carbohydrate may be added, and later fruits and vegetables. The required protein will be supplied by the milk. Meats should be withheld for several months.

Prognosis for Future Pregnancies.—While convulsions almost never return twenty-four hours after delivery, we continue to keep a record of the blood pressure, as a basis for our advice concerning future pregnancies.

When the blood pressure returns to its normal limits, and when the albumin disappears from the urine within two weeks, it seems quite safe to predict that the possibility of a toxemia in another pregnancy is very remote, irrespective of the severity of the eclampsia.

When albumin persists in the urine and the blood pressure remains elevated longer than ten days or two weeks, it is almost certain that the toxemia will return in a subsequent pregnancy. The longer the period of resolution, the earlier will the next toxemia make its appearance.

If the patient had prenatal observation, and there was a long period of toxemia, we could assume that some damage was done to the kidneys, and that a toxemia will return with another pregnancy.

Some prognostic value might be placed upon a long period of coma. If the patient regains consciousness rather promptly, it might be inferred that the damage is less.

The prospects will be better for future pregnancies when ample opportunity is given for kidney repair over a long period.

The Water Supply of Vienna.—A short time ago the Vienna Health Bureau celebrated the twenty-fifth anniversary of the opening of the second alpine spring aqueduct. A Festschrift, published for the occasion, contains data on the history of Vienna's water supply. Before 1836, Vienna's fresh water came from local sources and amounted to only 1,600 cubic meters (tons) daily. In that year a new source was utilized, which provided the city with an additional 10,000 tons daily. This was supposed to have been filtered, yet in 1873 an analysis showed the water to contain "cotton fibers, bird feathers, and woolen threads." In those times there were many fatal cases of typhus and cholera. The number of deaths from typhus fluctuated between 412 in 1864 and 1,584 in 1855. The average was 845 deaths annually, or 170 for each hundred thousand inhabitants. Between 1831 and 1873 more than 20,000 persons died of cholera in Vienna. The water brought in was not pure and the quantity was insufficient (20 liters a day for each inhabitant). In addition, much water was drawn from house wells, another source of disease. In 1873 the first alpine spring aqueduct was placed in service, providing pure water. Immediately the number of typhus fatalities decreased. From 1874 to 1883 the annual average was 251 as compared with the earlier 845. During that period, 80 per cent of the houses in Vienna were connected with the new water supply. Since 1888 every building in Vienna has been supplied with pure water. The number of deaths from typhus has steadily decreased. In 1934 there were only twenty-one such fatalities; in 1918 there were 170. The average mortality from typhus for each hundred thousand inhabitants in the period 1891 to 1930 was four, or one-fortieth that of the period 1851 to 1870. Since 1873, cholera has entirely disappeared. In that year there were still 2,854 fatal cases recorded. Forty-seven imported cases were reported for the years 1892, 1893, 1910, 1914, and 1915. True smallpox is today practically unknown here. When the first aqueduct became insufficient, owing to the growth of the city, the second aqueduct was constructed in 1910 to bring Vienna water from a location 170 kilometers (100 miles) distant. The source of the water was located at 6,000 feet above sea level. The two aqueducts supply Vienna with about 380,000 tons daily, which means 200 liters for each inhabitant every twenty-four hours, although the average daily consumption is only 145 per capita. An abundant supply is thus assured. Vienna is known for the excellent quality of its water. The temperature of this water is 8 centigrade (46.4 Fahrenheit) both summer and winter. It is moderately hard and absolutely free from noxious infusions. Every building in Vienna is connected with this water supply.—*Vienna Correspondent, Journal of the American Medical Association.*

The Scotch Appetite.—Maybe there is some foundation for the current stories picturing the Scots as a bit overthrifty, penurious, stingy, close-fisted, and all that. Be that as it may, we at least know by the old records that the typical Scot of four hundred years ago was just the opposite. So the old chroniclers say. Thus wrote the English chronicler, Holinshed, in the year 1577:

"In Scotland they have given themselves (of late years to speak of) unto very ample and large diet, wherein as for some respect nature doth make equal with us, so otherwise they far exceed us in overmuch and distemperate gormandise, and so ingross their bodies that divers of them do oft become unapt to any other purpose than to spend their times in large tabling and belly cheer. Against this pampering of their carcasses doth Boethius very sharply inveigh."

At this same time in England white bread was much used in the diet of the upper classes, but the common people had to use, chiefly, rye. Some very coarse brown bread was made for the poor.

PRE-CONVENTION BULLETIN

CALIFORNIA MEDICAL ASSOCIATION—SIXTY-FIFTH ANNUAL SESSION
CORONADO, MAY 25-28, 1936

Section 3 of Article XII of the California Medical Association Constitution states in part: "The Association, prior to the annual session, shall print a 'Pre-Convention Bulletin,' which shall contain reports of officers and committees. . . . A copy of the 'Pre-Convention Bulletin' shall be given to each delegate and alternate, on or before registration."

The following official reports* are to be presented at the coming session of the House of Delegates.

Delegates are urged to familiarize themselves with their contents.

Members, likewise, are requested to become familiar with the recommendations of these reports and discuss them with other members and delegates.

* * *

I

REPORTS OF GENERAL OFFICERS

REPORT OF THE PRESIDENT

To the Members of the House of Delegates and the Members of the California Medical Association:

Your organization has grown to such a size, with more than 5,400 medical men and women holding membership in forty component county society units, and the problems confronting your group have become so many and so complicated, that the average member, on assuming the presidency, must realize with humility and a feeling almost akin to dismay, the magnitude of the duties which beset him and the responsibilities attached to a position of such importance. He must realize that alone he can accomplish little—by his own unaided efforts little progress can be made.

It was with such a feeling of humility, and with such a sense of responsibility, that your president of 1935-1936 assumed the tasks of his office. In laying aside the honors of the office and in returning to the ranks of membership in his component county society, he hopes that he still retains the same humility and the same sense of responsibility. To these, to his great joy and peace of mind, has been added the satisfaction of having had the privilege of working with such willing, devoted helpers who have coöperated with him to the fullest extent during the entire term of office. Without their aid little or nothing could have been accomplished; with their willing, whole-hearted assistance, there has been, he believes, progress.

Therefore, your president wishes to pay his respects and record his gratitude to the president-elect, to the speaker and vice-speaker, to the secretary-treasurer, to the editor, to each and every member of the Council, and also to General Counsel Peart, for the large part they have played in making the burden of responsibility lighter and, in so many ways, helping him to carry out the duties of his office. He would like, also, to thank the members of the various committees, both standing and appointed, for the loyal, faithful and satisfactory manner in which they have carried on their work. Much of this work has been arduous, time-consuming, and at times carried on at personal financial loss; but it has been at all times well and cheerfully done. As an example, I could mention the labors of our past president, Doctor Toland, who as chairman of the Committee on Postgraduate Work and also as chairman of the California Medical Association San Diego Exposition Committee, has, with his coworkers, accomplished so much at so great an expenditure of time, thought and effort. This example is but an illustration of the splendid work of the committees in general, which space does not allow to be mentioned in detail.

Your president has visited each and every component county society. To accomplish this it has been necessary at times to have joint meetings of two or three societies; but the work has been accomplished with pleasure and profit, to your president at least, and he hopes to the membership at large. These visits were made in company with the secretary-treasurer, whose able assistance is hereby gratefully acknowledged. In each district he has had the company of the district councilor and, on many occasions, that of the councilor-at-large. At such times as were possible, the president-elect, the speaker, the chairman of the Council, and General Counsel Peart accompanied the others and gave their support and advice. In fact, as stated earlier in this report, every officer and councilor gave your president his entire coöperation, of which he is not a little proud and grateful.

The response by the membership to the call for meetings has been most gratifying. Without exception, the officers of the component county societies have coöperated in notifying the membership and arranging for meetings. In the informal chats following the meetings, the officers and members have displayed an intelligent and enthusiastic interest in organized medicine and in its problems.

These meetings, your president believes, have helped materially to acquaint the membership with the kind of democratic representative form of government which bears the name of the California Medical Association. He believes also that they have brought more closely before the membership the problems of organized medicine and the part each member must take in the solution of these problems. They have resulted, he hopes, in better organized, more compact solidarity of the profession and in a greater determination to act as a unit instead of as individuals in the protection of the rights and privileges of the profession, and of the individuals whom that profession serves.

During the past year there have been continuation and expansion of the series of postgraduate conferences of the previous year, the inauguration of Public Health Institutes, and the beginning of a compilation of a corps of speakers who will be available when needed to address lay groups. Contact has been made with the various governmental departments and bureaus, and with the various lay groups throughout the State. The first annual joint meeting of county society officers with State Association officers and councilors was held in San Francisco on January 18. The assembling of a great medical exhibit at the San Diego Exposition, under the auspices of the California Medical Association and the San Diego County Medical Society, has been completed and is at present on display in the Medical Science Building. Your Association, through the central office in San Francisco, has furnished throughout the year, to 250 newspapers, weekly news letters dealing with public health topics and allied subjects. In these and in many other ways, your Association has endeavored to provide intelligent leadership for both our medical confrères and the lay public.

It is to be hoped that these and similar activities will continue to progress and expand, to the end that the California Medical Association may retain its rightful place of leadership in everything pertaining to the health and welfare of the people of California, and in the promotion of the practice of sound scientific medical care by the members of the profession; and to the end that the members of the profession may enjoy that position in society and that state of prosperity to which, as cultured and well-trained men and women, they are entitled.

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* The reports are grouped as follows:

I.—Reports of General Officers (p. 407).
II.—Reports of District Councilors (p. 413).
III.—Reports of Councilors-at-Large (p. 415).
IV.—Reports of Standing Committees (p. 415).
V.—Reports of Commissions, Special and Council Committees (p. 421).
VI.—Addenda (p. 430).

Your president has had a wonderful year. He has appreciated your coöperation, your courtesies and your hospitality. He is deeply grateful for the privilege and honor of holding such a distinguished office in this great medical society, which contains so many well-trained, devoted and unselfish doctors.

Respectfully submitted,
Robert A. Peers, *President.*

REPORT OF PRESIDENT-ELECT

To the President and the House of Delegates:

Your president-elect has, during the past year, attended all meetings of the Council, Executive Committee, and Trustees Of The California Medical Association, of which bodies he is, ex officio, a member. He has also attended many county society and other medical meetings with other officers of the Association.

Respectfully submitted,
Edward M. Pallette, *President-Elect.*

REPORT OF THE COUNCIL

The report of the Council will be read at the first meeting of the House of Delegates, and will be included in the minutes of the House of Delegates, to be printed in the July issue (the June issue being in press at the time of the annual session at Coronado).

REPORT OF THE SPEAKER OF THE HOUSE OF DELEGATES

To the President and the House of Delegates:

The Speaker has attended all meetings of the Council, Executive and Special Committees upon which he has been called to serve.

The 1936 session of the House of Delegates promises to be a very important one. Numerous important subjects will come before it. The Speaker urges every delegate to read the reports of officers and committees, and to orient himself as far as possible in regard to the Association and its problems. This will assure prompt and informed action by them, and an early adjournment.

Respectfully submitted,
W. W. Roblee, *Speaker.*

REPORT OF SECRETARY-TREASURER

To the President and the House of Delegates:

It is with genuine appreciation of the honor and privilege that I submit to your body my annual report for the year 1935, as secretary-treasurer of the California Medical Association.

I have condensed several of the sections of this report, because extended comments have been made during the year and are on record in the Minutes of the Council. In consequence, this report is, to a large extent, a summarization of the Association's fiscal year.

It is possibly not amiss to state at this time that the year so recently ended was characterized by several vital incidents that marked the year of 1935 as an epochal year—the ending of one era and the opening of another in the Association's history, by reason of events in our national and state communal socio-political and economic relationships and policies. And yet, withal, a year to which we may refer with justifiable pride as one in which this Association fulfilled its obligations to both the public and to members in a most commendable manner.

MEMBERSHIP

On January 1, 1935, the total membership was 5,169. On December 31, 1935, our membership was 5,402—a gain of 333, represented by the following county society affiliations:

County	1934 No. of Members	1935 No. of Members	Gain	Loss
Alameda	473	459	..	14
Butte	18	24	6	..
Contra Costa	43	44	1	..
Fresno	113	108	..	5
Humboldt	31	28	..	3
Imperial	23	24	1	..
Kern	48	46	..	2
Kings	18	18	..	..
Lassen-Plumas	10	11	1	..
Los Angeles	2,000	2,139	139	..
Marin	33	39	6	..
Mendocino	20	19	..	1
Merced	24	23	..	1
Monterey	46	46	..	..
Napa	27	30	3	..
Orange	107	109	2	..
Placer	29	31	2	..
Riverside	60	64	4	..
Sacramento	132	144	12	..
San Benito	5	5	..	..
San Bernardino	119	128	9	..
San Diego	227	236	9	..
San Francisco	775	809	34	..
San Joaquin	86	88	2	..
San Luis Obispo	25	26	1	..
San Mateo	49	51	2	..
Santa Barbara	99	103	4	..
Santa Clara	168	172	4	..
Santa Cruz	30	29	..	1
Shasta	11	11	..	..
Siskiyou	20	20	..	..
Solano	23	23	..	..
Sonoma	47	53	6	..
Stanislaus	38	41	3	..
Tehama	12	11	..	1
Tulare	37	37	..	..
Ventura	32	33	1	..
Yolo-Colusa-Glenn	25	25	..	..
Yuba-Sutter	11	13	2	..
Del Norte	....	5	5	..
Active Members—Total	5,094	5,325	354	28

	1934 No. of Members	1935 No. of Members	Gain	Loss
Active Members	5,094	5,325	254	28
Associate Members	6	6	..	..
Honorary Members	12	12	..	..
Retired Members	57	59	..	..
	5,169	5,402		

Net Gain for Year 1935 333

MEMBERSHIP BY COUNCILOR DISTRICT

First District

Imperial	24
Orange	109
Riverside	64
San Bernardino	128
San Diego	236
	561

Second District

Los Angeles	2,139

Third District

Kern	46
San Luis Obispo	26
Santa Barbara	103
Ventura	33
	208

Fourth District

San Joaquin	88
Fresno	108
Kings	18
Merced	23
Stanislaus	41
Tulare	37
	315

Fifth District

Monterey	46
San Benito	5
San Mateo	51
Santa Clara	172
Santa Cruz	29
	303

Sixth District

San Francisco	809

Seventh District

Alameda	459
Contra Costa	44
	503

Eighth District

Butte	24
Yolo-Colusa-Glenn	25
Lassen-Plumas	11
Placer	31
Sacramento	144
Shasta	11
Yuba-Sutter	13
Tehama	11
	270

Ninth District

Del Norte	5
Humboldt	28
Marin	39
Mendocino	19
Napa	30
Siskiyou	20
Solano	23
Sonoma	53
	217

Comment.—Every credit must be given to the officers and membership committees of county societies for their efforts to secure the affiliation of eligible physicians. Twenty-two county organizations reflect a gain in membership, while eight show a loss of twenty-eight members; the net gain for the year, after deducting thirty-six deaths, is 228. A survey of eligible physicians warrants making an estimate that our Association can attain a maximum of 6,500 members. The effort will be made to secure that numerical enrollment. Our average is 83⅓ per cent of eligible, desirable physicians in the State.

VISITS TO COUNTY SOCIETIES

In company with the president, president-elect, councilors, or alone, your secretary has attended meetings of the following county societies:

Alameda
Los Angeles (Long Beach)
San Luis Obispo
Placer
Stanislaus (2)
Santa Barbara
Sonoma
Butte
Plumas
Del Norte
Merced
Sacramento (2)
Santa Rosa
San Francisco (2)
Sutter
Riverside
Fresno
Tehama
Napa
Siskiyou
Humboldt
San Bernardino
San Joaquin (2)
San Diego
Santa Clara (2)
Marin (3)
Kern (2)
Solano
Lassen
Kings-Tulare
Mendocino

These represent forty meetings. It has been a real pleasure to meet with these members, become acquainted with their local problems, and to discuss with them the policies and activities of the State Association; the end sought being to cause these members to realize that our Association has a direct personal interest in their welfare, and that they are an important factor in our State organization. In some localities we were informed that they had never been visited by a state officer. It can be assumed that these visits will eventuate in a more compact, united Association, reflecting greater achievements. In reflecting upon the year's activities, it can be stated that palpable evidence exists that there is a very pronounced increase in the interest members are revealing in their medical organizations. A better understanding exists. The value of membership affiliation is being appreciated more and more. Members are realizing that by unity of purpose and effort it is possible to exercise wholesome influences and power in science, social, political, and economic fields. The California Medical Association renders to its members and to the public a wide range of service that is for their common good.

Additional Meetings.—Your secretary has attended and addressed the following bodies:

San Francisco Y. W. C. A.
Pacific College Conference.
Santa Monica Hospital Association.
San Francisco Problems Group.
Wayne County Medical Society, Detroit, Michigan.
State Secretaries' Conference, Chicago, Illinois.
Seattle Medical Service League.
Portland Service League.
Six local Women's Auxiliary meetings.
State Auxiliary annual meeting.
Medical students at University of California and Stanford University.

Contacts.—Contacts have been made and maintained with the following:

Heads of Departments of State Government.
State Parent-Teachers Association.
Federation of Women's Clubs.
California State Chamber of Commerce.
American Legion.
Rotary Club.
State Forestry Department.
Federal Forestry Department.
United States Public Health Service.
Press Club.
"Time's" Pacific Coast Representative.
Associated Press.
Salvation Army.

While no attempt has been made to keep a record of lay correspondence, it is conservatively estimated that over a thousand lay communications have been received and answered. In each reply, information was given as to the functions and activities of our Association in order that a better understanding may be created in the public mind, and that the public will perceive the advisory service that is being rendered by the Association.

PUBLIC RELATIONS

While the Committee on Public Relations will submit a report to the House of Delegates, the following features are cited as a matter of record:

Public Health Institutes.
Lay Extension Lecture Bureau.
San Diego Fair.
Press releases to two hundred and fifty newspapers.
Bibliography for public libraries.

ANNUAL MEETING

The income from commercial exhibits defrayed all the expenses of the 1935 annual meeting, and earned a net profit of $761.73. All arrangement details were supervised from the general office.

CALIFORNIA AND WESTERN MEDICINE

The duties related to our official publication may be summarized as follows:

Advertising sales $23,816.50, an increase of $1,370.50.
Obtaining contracts by personal solicitations, approximately $1,400.
Addressing—Journal Saving, $720.
Reprint-sales earnings, $845.70.
Reduction of cost production, $2,600.
Preparing copy on Association work for each issue.

A constant effort is being made to increase advertising sales. That an increase in these sales may be expected is evidenced by the nine and one-half pages of new advertising in the January and February issues. Your secretary desires to acknowledge gratefully the helpful assistance and suggestions given by the editor, Dr. George H. Kress, and to express appreciation for his courtesy and friendly consideration. The Association can be justly proud of its official publication.

ASSOCIATION ACTIVITIES

Monthly Letter.—By means of a monthly letter sent to officers of county societies, a closer contact and relationship has been maintained between the central office and the county units. It is quite essential that county officers shall be frequently reminded of the part they have in our programs and activities. A copy of all such communications is sent to every state officer and councilor for their information.

Secretaries' Conference.—The first annual conference of county secretaries was held on January 18, 1936. It is anticipated that desirable reactions will ensue, and that local secretaries will be inspired to fully meet up to the official responsibilities.

Committees.—All of the Association's office facilities and the services of the secretary and office personnel have been placed at the disposal of standing and special committees. In several instances, expense has been saved by mimeographing and writing reports in the central office. While this has at times taxed our resources, it has been a pleasure so to serve.

Medical Colleges.—Your secretary has addressed the senior and junior medical students of the University of California and Stanford University on the objects and functions of medical organizations.

Membership Records.—A "cardex" system of membership records was installed, and the Association now has a perfect membership file, giving full information about every member.

Membership Certificates.—As members paid their dues, a membership certificate, suitable for framing and display in reception rooms, was sent in lieu of pocket cards. Many favorable comments have been received. It is felt that desirable publicity for the Association has been obtained.

Reference Library.—A reference library on medical economics, public health, legislation and allied subjects has been established and is being enlarged. A bibliography of approved texts and articles was prepared and sent to public library librarians as a guide for public reading.

Headquarters Details.—No effort has been made to keep a record of the hundreds of persons seen in the office or the numerous telephone calls that are daily received. The office staff consists of four stenographers, three of whom devote their entire time to Association work. I desire to record appreciation for their loyalty and willingness to give extra time to meet the demands of office operations.

POSTGRADUATE CONFERENCES

The Association recognized its responsibility to provide opportunity for its members to pursue postgraduate work. The Special Committee has prepared a curriculum of courses and clinical demonstrations for councilor districts. These are being developed and extended. It is planned eventually to perfect a definite schedule and to outline a program of work that should be embraced by every member during a given period. A certificate of postgraduate study will be given to every member completing the course.

Appreciation is tendered to the medical department of the University of California for its willing readiness to merge the postgraduate program established by that institution with that of our Association.

FINANCIAL REPORT

The auditor's report is appended, and imparts a certified statement covering all details of our financial operations. The year just ended was one in which important questions and problems made a heavy drain upon Association funds. The operating loss for the year would have been some $11,000 larger had office and administration economies not been inaugurated and earning income increased.

It is incumbent upon the Council to make specific recommendations regarding the financial expenditures of the Association to the House of Delegates.

RECOMMENDATIONS

The following recommendations are tendered:

1. That travel expenses of the President and President-elect be authorized.
2. That a study be made of the Scientific Sections looking toward their reorganization. This is apparently desirable for the purpose of holding our annual meetings in localities that will afford more satisfactory accommodations and auditoriums.
3. That all financial transactions be done through one designated bank.

That the Council recommend to the House of Delegates that the Council be authorized to formulate and adopt a financial budget for the Association's fiscal year in place of the Association year.

IN CONCLUSION

Your secretary has endeavored to carry out the specific instructions of the House of Delegates and the Council in spirit and to the letter, as well as to administer the affairs of the Association in an efficient manner. The quest has ever been to be of every possible service regardless of time or place requisite to comply with instructions and requests. During the past fourteen months, I have been absent from the office approximately fourteen days in one- and three-day periods, on personal business and affairs.

Lastly, I desire to express a very genuine appreciation for all the consideration and courtesies shown to me and for the manifested confidence that was reposed in me. I am, therefore, sincerely grateful for both the opportunity and privilege to serve the Association and its members.

Respectfully submitted,

Frederick C. Warnshuis, *Secretary-Treasurer.*

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BALANCE SHEET
CALIFORNIA MEDICAL ASSOCIATION
At the close of business, December 15, 1935

ASSETS

Cash			
On hand		$ 50.00	
On deposit:			
Commercial accounts:			
Bank of America, N. T. & S. A.	$ 1,000.53		
Wells Fargo Bank & Union Trust Co.	595.31		
Savings accounts:			
Anglo-California National Bank	893.05		
Wells Fargo Bank & Union Trust Co.	342.69		
		$ 2,831.58	
			$ 2,881.58
Accounts Receivable			
Journal advertisers		$ 3,342.40	
Loss: Allowance for doubtful		$ 235.46	
			3,106.94
Other Assets			
Deposit		$ 75.00	
Accrued interest on savings accounts		11.25	
			86.25
Permanent			
Furniture, fixtures and office equipment—At nominal value			1.00
Deferred			
Salaries		$ 416.66	
Rent paid in advance		411.00	
			827.66
Deficit			
Balance, December 15, 1935			26,968.20
			$33,871.63

LIABILITIES

Accounts Payable		
Loans from Trustees of the California Medical Association	$31,000.00	
Advertising Commission	227.40	
		$31,227.40
Deferred Income		
Exhibit space paid in advance	$ 350.00	
Dues paid in advance	300.00	
		650.00
Morris Herzstein Bequest		
Unexpended balance of income		1,994.23
		$33,871.63

(NOTE A) The Association had beneficial interest at December 15, 1935, in all of the net assets of Trustees of the California Medical Association. The Balance Sheet of that Corporation as of that date showed net assets of $82,198.10.

(NOTE B) This Balance Sheet is subject to the appended comments and should be read in connection therewith.

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SURPLUS—DEFICIT
CALIFORNIA MEDICAL ASSOCIATION
December 15, 1935

Surplus, December 31, 1934, as shown by report				$ 1,200.92
CHARGES				
Net loss from operations for the period from January 1, 1935, to December 15, 1935, as shown by statement of income and expense:				
Association Division—Loss	$31,723.91			
Journal Division—Gain	5,940.68			
		$25,783.23		
Write-down of furniture, fixtures and office equipment to nominal value of $1.00		3,067.28		
			$28,850.51	
CREDITS				
Reimbursement of expenses paid in prior years for:				
Trustees of the California Medical Association			$ 494.51	
Indemnity Defense Fund of the California Medical Association		186.88		
			681.39	
				28,169.12
Deficit, December 15, 1935, as shown by this report				$26,968.20

INCOME AND EXPENSE—ASSOCIATION DIVISION CALIFORNIA MEDICAL ASSOCIATION

For the period January 1, 1935, to December 15, 1935

Income			
Membership dues		$53,250.00	
Loss: Allocated to Journal		15,894.50	$37,355.50
Exhibits at annual meeting			2,859.17
			$40,214.67
Expenses			
Salaries		$14,662.25	
Committee appropriations and expense, public relations, etc.		35,775.59	
Legal expense		4,467.14	
Travel		3,490.24	
Publications and subscriptions		2,597.50	
Rent		2,363.25	
Annual meeting expense		2,097.44	
Office supplies and expense		1,596.02	
Delegates—American Medical Association Convention		1,270.50	
Office equipment expense		1,178.44	
Postage		625.83	
Telephone and telegraph		334.01	
Miscellaneous		1,930.27	
			72,388.48
			$32,173.81
Other Income			
California Medical Society—Rent	$ 600.00		
Interest earned	26.49		
Miscellaneous	1.99		
		$ 628.48	
Less: Other Deductions			
Adjustment of accounts receivable	$ 91.25		
Interest paid	87.33		
		178.58	
			449.90
Loss—Association Division			$31,723.91

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INCOME AND EXPENSE—OFFICIAL JOURNAL DIVISION CALIFORNIA MEDICAL ASSOCIATION

For the period January 1, 1935, to December 15, 1935

Income		
Advertising		$23,816.50
Allocation of dues		15,894.50
Subscriptions		673.70
		$40,384.70
Expense		
Salaries	$ 7,436.59	
Production	22,387.57	
Commissions	3,304.40	
Distribution	1,158.71	
Rent	787.75	
Office supplies and expense	795.26	
Collection expense	128.56	
		35,998.84
		$ 4,385.86
Other Income		
Recoveries on accounts previously written off	$ 544.12	
Income from Reprints	845.70	
Sale of Review Books	165.00	
		1,554.82
Gain—Journal Division		$ 5,940.68

REPORT OF THE EDITOR

To the President and the House of Delegates:

The editor's report on papers received, printed, awaiting publication or declined, is as follows:

(a) *Report on papers of the annual session at Yosemite, May 13 to 16, 1935:*

At last year's annual session a total of 160 papers were read before the general meetings and different sections. A summary of the disposition of the papers read at last year's annual session is as follows:

Yosemite annual session papers published in 1935	28
Yosemite annual session papers published in 1936	15
Yosemite annual session papers, read but published elsewhere, declined or not sent in	72
Yosemite annual session papers in CALIFORNIA AND WESTERN MEDICINE files still awaiting publication (annual session papers in this April issue to be deducted)	45
Total annual session papers read at Yosemite	160

(b) *Report on all special articles which have been printed in* CALIFORNIA AND WESTERN MEDICINE *during the period April, 1935 to April, 1936 inclusive:*

Special and original articles which were published in CALIFORNIA AND WESTERN MEDICINE during the past year (April, 1935 to April, 1936 inclusive) are as follows:

Section papers from annual session at Riverside, 1934	19
Section papers from annual session at Yosemite, 1935	37
Papers read before general session at Yosemite, 1935	5
Lure of Medical History articles	12
Papers from Nevada State Medical Association meetings	2
Papers read before county and other medical societies	4
Papers accepted from miscellaneous sources (original articles, abstracts of speeches, reprints from other publications, etc.)	38
Clinical Notes and Case Reports	36
Editorials	58
Editorial Comment articles	27
Bedside Medicine symposia	12
Total papers published during past year	250

(c) *Report on manuscripts in* CALIFORNIA AND WESTERN MEDICINE *files and awaiting publication in April, 1936, and later issues:*

Unpublished papers from annual session at Yosemite	45
Unpublished papers from Nevada State Medical Association meetings	1
Unpublished papers read before county and other societies	3
Unpublished papers not read before other societies	12
Lure of Medical History articles	3
Clinical Notes and Case Reports	18
Editorial Comment articles	10
Bedside Medicine symposia	5
Total manuscripts on hand awaiting publication	97

(d) *Report on non-annual session papers submitted:*

A total of forty-one papers from county societies and other sources, which were submitted for publication in CALIFORNIA AND WESTERN MEDICINE during this past fiscal year (April, 1935 to April, 1936 inclusive) could not be accepted for various and special reasons.

Non-annual session papers submitted, but declined	41

The increase in the number of papers read at the previous annual session, but still awaiting publication, is accounted for in the fact that, during the last year, the extra space demanded properly to explain pressing organization policies and needs, left less room than usual for the scientific contributions. It is true that this list of unpublished manuscripts could be materially reduced if fewer annual papers were accepted. However, it has been the view of the editor and the publication committee that at least 50 per cent of the papers read at an annual session should be printed, if possible, in the official journal of the California Medical Association. Another method of holding down the list of unpublished annual session papers would be to refuse all other contributions from component county societies and miscellaneous sources; but such a policy would detract from the interest of CALIFORNIA AND WESTERN MEDICINE, because it would prevent the acceptance of not a few articles of immediate or important or special interest.

In view of the existing circumstances, it would seem advisable that the House of Delegates recommend a temporary increase in the size of the JOURNAL, for several issues, to permit the early publication of the Yosemite papers still awaiting publication. If this is not done, the same dilemma will face us at next year's annual session, in connection with papers to be read at this coming Coronado session of May, 1936.

At the conference of county society secretaries, held in San Francisco on January 18, 1936, as recorded on page 212 of the March issue, the editor commented in some detail on the problems of the official journal and the manner in which its work was carried on. On that account, the problems there discussed will not be considered in this report.

It is pleasing to note that during the last year a material reduction was secured in printing costs through the generous coöperation of the Barry Company, who have printed the official journal from the time it was founded in November, 1902. In conference, the Barry Company authorized the editor to inform the Council that they would reduce their charges to the very lowest sum, consistent with good printing, thus creating a saving of about $2,600 annually.

The improvement in business throughout the country has also been reflected in an increase in the number of advertisements, thus decreasing the bookkeeping deficit from that source, which had been so much in evidence during the last six years.

The federal postal regulations provide that all magazines having the status of official publications of organizations must have a definite subscription price. In the "prosperity days" prior to 1929, that price was set by the Council at $2 per member, but this proved, in the more recent years, to be a sum quite insufficient to cover the expense of producing and printing CALIFORNIA AND WESTERN MEDICINE, in which advertising income was so greatly lessened. The Council, therefore, a few months ago made the rate of subscription for California Medical Association members three instead of two dollars, and allocated funds on that basis. As a consequence of this action and an increase in the advertising income, there is now at the end of this year a bookkeeping profit, just as in late years there was a bookkeeping deficit. The California Medical Association, in common with other state medical associations, is committed to the publication of an official journal, and its net cost, in so far as an allocation of moneys from dues of members is concerned, must be the difference between the total expense of the JOURNAL and the total income from advertising, upon which amount the real subscription price would be based on that difference. The federal regulations, however, make it necessary to set in advance a subscription rate, and this naturally may either be in excess or below the actual amount needed, as previously noted. These explanatory comments are made for members who are, of course, not familiar with these matters and who may have had some difficulty in understanding the supposed (bookkeeping) deficits and profits of the official journal.

As in previous years, your editor wishes to thank the many members who have submitted the articles, and also those who have responded with special papers when called upon. The cordial coöperation, too, of contributors and of the Council has added greatly to the pleasure incident to the work of editorship.

Respectfully submitted,
George H. Kress, *Editor.*

REPORT OF THE LEGAL DEPARTMENT

To the President and the House of Delegates:

Since the adjournment of the House of Delegates at Yosemite May 16, 1935, the legal department of the Association has dealt with a number of major propositions.

Legislative.—Memoranda and opinions were prepared regarding pending legislative measures. Opinions were also prepared as to the constitutionality, validity, and meaning of a number of bills which passed the legislature and became statutes. Amendments were prepared drastically amending Senate Bill 471, which undertook to create a new form of insurance, to wit: medical and hospital insurance. These amendments were forwarded to the chairman of the Legislative Committee, and were subsequently adopted by the Assembly, whereupon Senate Bill 471 was allowed to die on the files. During the year a great deal of work was done assisting the special committee charged with the preparation of the proposed qualifying certificate act.

Anesthesiology.—At the direction of the Council and on request of the specialists involved, this department undertook the responsibility of prosecuting the appeal to the Supreme Court of California in the case of *Dr. Chalmers-Francis and others* vs. *Dagmar A. Nelson and the St. Vincent Hospital.* The matter was handled in coöperation with Attorney LeRoy Anderson, representing the specialists. Exhaustive briefs were filed and a motion to dismiss the appeal of Doctor Chalmers-Francis and his associates was successfully resisted. This case is now under submission, and a decision can be expected at any time,

Corporate Practice.—At the direction of the Council, we appeared as *amicus curiae* before the Superior Court at San Francisco in the case of *Pacific Employers' Insurance Company* vs. *The Insurance Commissioner,* a proceeding to compel the Insurance Commissioner to approve certain insurance policies. These insurance policies, while on their face providing for cash indemnity for illness and accident, were, nevertheless, by virtue of clauses contained in the application for the policy, in effect agreements for the furnishing of the services of physicians. The case was lost before the Superior Court, and the Attorney-General took an appeal. We again, in collaboration with Mr. A. J. Kennedy, counsel for the dental associations, and Mr. A. B. Bianchi, one of the attorneys for the State Bar, appeared and submitted briefs as *amici curiae* on the appeal. The District Court of Appeal, in deciding the case, held that:

> "Before setting forth the terms of the policies, it may be stated that it is well settled that neither a corporation nor any other unlicensed person or entity may engage, directly or indirectly, in the practice of certain learned professions including the legal, medical, and dental professions . . . (citing cases) . . . Under the foregoing authorities it is clearly declared unlawful for a corporation to indirectly practice any of said professions for profit by engaging professional men to perform professional services for those with whom the corporation contracts to furnish such services. In other words, said authorities declare that said professions are not open to commercial exploitation, as it is said to be against public policy to permit a 'middleman' to intervene for profit in establishing the professional relationships between the members of said professions and the members of the public. (*Hightower* vs. *Detroit Edison Co.,* 247 N. W. 97.)"

It is interesting to note that the amendments which this department prepared to Senate Bill 471, and which were adopted by the Assembly of the State Legislature, were commented on by the District Court of Appeal in the following language:

> "Petitioner discusses at some length the social and economic need for health insurance. We assume that petitioner refers to compulsory health insurance or some form of health insurance similar to that offered in petitioner's policy, as health insurance policies are now provided for under the above-mentioned act. It is a matter of common knowledge that the general subject of health insurance has provoked much discussion in recent years, and it is also a matter of common knowledge that there is a great diversity of opinion concerning this subject. There are those who believe that the time has come when the rules so firmly established by the authorities above cited should be changed or modified in certain respects. We do not feel called upon, however, to discuss this question, for if the established rules are to be changed or modified, we deem it to be the province of the legislature rather than the courts to determine when, to what extent, and under what conditions and restrictions, the change or modification should be made. In this connection, it is of interest to note the legislative history of Senate Bill No. 471, introduced at the 1935 session of the legislature, as shown by the legislative journals of which we may take judicial notice. (*French* vs. *Senate,* 146 Cal. 604.) Said bill was apparently introduced for the purpose of legalizing the type of insurance provided by the policy before us. In the Assembly Journal of May 23, 1935, at page 22, it appears that the Assembly amended the bill to eliminate all reference to dentistry. In the Assembly Journal of June 12, 1935, at pages 42 to 46, it appears that the bill was amended to eliminate all reference to medicine, and the following was added: '*This chapter shall not authorize and nothing in this chapter shall be construed as authorizing any corporation or any insurer licensed hereunder or any person other than a holder of a valid and unrevoked physicians and surgeons' certificate to practice medicine and surgery directly or indirectly or to furnish professional services of physicians and surgeons.*' The bill was thereafter permitted to die on the files without being brought up for final passage. It thus appears that the legislature was not yet prepared to change or modify the established rules prohibiting the corporate practice of medicine and dentistry." (Italics supplied)

This case for the first time establishes in a court of record in California that a corporation cannot practice medicine any more than it can practice law or dentistry.

County Hospitals.—A third case of primary importance which engaged the department's attention during the year is that of *Goodall et al.* vs. *Brite et al.*, the Kern County hospital case, in which the taxpayer physicians first secured an injunction from Superior Judge Van Zante, from which the supervisors appealed. The District Court of Appeal, Fourth Appellate District, affirmed the decision. The following paragraph from the court's opinion indicates its reasons for deciding in favor of the taxpayers:

> "In approaching this question it should be borne in mind that the record establishes the fact that there are excellent privately owned hospitals in Kern County with sufficient facilities to care for those who can pay for their care and treatment. It seems, therefore, that the question is not so much the preservation of the health and general welfare of the financially able citizens of the county as it is one of the preservation of their private resources. If a patient can be given the same and equally efficient care and treatment in a private hospital that he can receive in the county institution, his choice of a hospital does not determine his chances of recovery, but merely the amount he must pay to be healed, and whether he will pay the established charge of a private institution, or nothing, or the small donation hoped for by the county hospital. The preservation of the health and general welfare of the citizens of the county is a question of the prevention and cure of disease generally, and not the accomplishment of these ends by any particular means or in any particular institution. We, therefore, conclude that the admission and treatment of patients in the county hospital who, either themselves or through legally responsible relatives, can provide themselves with equally efficient care and treatment in private institutions does not promote the health and general welfare of the citizens of Kern County and is not a proper exercise of the police power of that county and results in the use of public money for private purposes."

The supervisors of Kern County, with the supervisors of eleven other counties appearing by *amicus curiae*, petitioned the Supreme Court for a hearing. March 30, 1936, the Supreme Court denied this petition.

The Association of California Hospitals, through their counsel, Messrs. Music, Burrell & Churchill, wrote excellent *amici curiae* briefs, and through Mr. Churchill appeared at the argument in the District Court of Appeal. An initiative is now being circulated for signatures to nullify this ruling.

Physicians' Defense and Indemnity Insurance. — The committee on this subject has done a great deal of work during the year, and the legal department has advised with the committee at its meetings and assisted in the preparation of its report to the Council. As the committee's report will deal fully with this subject, this report will not be extended by further mention of the matter.

Disciplinary Procedure.—A great deal of time and study has been given by the committee charged with the preparation of this proposed new by-law, and the legal department has endeavored to do its part of this work. As the committee's report will deal fully with this subject, the matter will not be discussed here.

Exemption from Capital Stock and Income Tax.—During the year a ruling has been obtained from the Treasury Department of the United States, holding that the Trustees Of The California Medical Association and the California Medical Association are not subject to the federal capital stock tax or income tax.

Miscellaneous.—During the year opinions of considerable interest have been requested and furnished dealing with such subjects as compensation for expert testimony, effect of city ordinances regarding examination of school children, disciplinary procedure under the constitutions and by-laws of several component county societies, the power of cities to impose license taxes on physicians; papers and articles with reference to libel have been examined and opinions rendered thereon; advice and assistance has been given in the preparation of constitutions and by-laws of two component county societies; the usual attendance at meetings of the Council, Executive Committee and other standing committees, has obtained throughout the year.

Respectfully submitted,

Hartley F. Peart, *General Counsel.*

II

REPORTS OF DISTRICT COUNCILORS

FIRST COUNCILOR DISTRICT

San Bernardino, San Diego, Riverside, Orange, and Imperial Counties

To the President and the House of Delegates:

The first six months of my councilorship have been very busy and interesting. They have been busy, as I have attended all meetings of the Council whether called for San Francisco or Los Angeles. Riverside County Society has been visited twice; Orange County Society has been visited two times. Imperial and San Diego County societies have each had a visit. The home county has not been overlooked. The personal acquaintances and contacts in the different societies have greatly increased, and will make for efficient and pleasant conditions in the future.

It has been interesting to meet these men and know that they are not more interested in their own welfare than they are to see that nothing may prevent the patient receiving other than adequate and efficient care. The county membership, whether large or small, has been very cordial, and all members present a solid front for the advance of matters pertaining to medicine and surgery.

Each county in the First Councilor District is planning on a postgraduate conference this spring. These meetings were so well attended last year that it is necessary to repeat. Riverside plans a meeting for March 23, San Bernardino, April 7; Orange and Imperial have not announced a time of meeting.

Every secretary of the First Councilor District was in attendance at the Secretaries' Conference held in San Francisco last month. It was a profitable meeting, and should be continued in the years to come.

Respectfully submitted,

Calvert L. Emmons, *Councilor,*
First District.

SECOND COUNCILOR DISTRICT

Los Angeles County

To the President and the House of Delegates:

During the past year much has been done to consolidate our position in Los Angeles County. In the past several years there has been a gradually increasing interest shown by the members of the Association in the work which their organization is trying to do, and a greater appreciation of the importance of organization and of organized effort looking to a solution of the many economic, social and professional problems which are facing us. The most dangerous force operating against medicine is not represented by those well-financed lay groups seeking the regimentation of the profession, nor the superintendental proponents of antivivisection, nor in the organized attacks of the untrained for equal professional status, but in the inertia within the ranks of medicine itself.

The campaign which has been waged by the county and state organizations to combat this inertia is showing increasing results. There is manifest a greater readiness on the part of the individual member to accept responsibility and to bear a part in the activities of the Association.

As the secretary of the Los Angeles County Medical Association recently stated, "The past year has witnessed little of the unwarranted, unconsidered, destructive criticism that, before this present time, was accepted as a most undesirable yet strikingly inharmonious motif in the design of the fabric of medical organization."

In all this work, the Association's building and its facilities have been a very potent factor making for good fellowship and serving to increase the number of contacts which the Association makes with the profession and the public.

As a result, we now are better prepared to meet the never-ending series of issues, many of which are and will continue to be inimical to the very existence of the profession.

Respectfully submitted,

C. R. Howson, *Councilor,*
Second District.

THIRD COUNCILOR DISTRICT

Kern, San Luis Obispo, Santa Barbara and Ventura Counties

To the President and the House of Delegates:

The hospital situation in Kern County continues to hold the center of the stage in the Third District, and the report on its present status wlil be given by our legal department. It is again a pleasure to report that the members of the Kern County Society are maintaining their solid front in their fight against intolerable conditions. If all our component societies would pull together as does Kern, we could face our coming economic problems with confidence.

The visits of our president and secretary to the San Luis Obispo, Kern, and a joint meeting of the Santa Barbara and Ventura county societies, were found to be of greater importance than we at first expected. As a result an understanding of the value of the State Association has been given to the rank and file of our membership such as they have never had before, and this has proven of inestimable value, both to them and to the Association. A marked increase in the individual interest has been noted since these meetings.

Respectfully submitted,
Henry J. Ullmann, *Councilor,*
Third District.

FOURTH COUNCILOR DISTRICT

Fresno, Madera, Kings, Tulare, Merced, Mono, Mariposa, Inyo, Calaveras, San Joaquin, Tuolumne, and Stanislaus Counties

To the President and the House of Delegates:

Your councilor of this district has had a busy year, and feels he has learned a good deal about the activities and duties of a councilor, and much about the problems of the county societies of the district. All of the Council meetings have been attended. Every society has been visited once or more, and many meetings were combined with a visit by President Peers and Secretary Warnshuis.

Committee work, involving a state-wide study of tax-supported hospitals and medical service, has made much demand on the time of this councilor, but has offered an opportunity for important service to the entire profession of the State.

The Councilor feels that the California Medical Association membership of this district is active and wide-awake on the many questions that need an answer from our profession.

The promotion of voluntary hospital insurance has been approved by the Fresno County Society, where also an adaptation of the Alameda plan is making a promising showing. Much interest in means to curb the abuse of county hospital service has developed.

The duties of the physician, as a citizen, to assume leadership in the efforts to solve medical and hospital problems for the greatest public good, as well as for his own protection, are receiving much merited consideration.

At Modesto, Stanislaus County Society offered a postgraduate course as sponsored by the California Medical Association. This course was well attended, and was open to members of adjoining societies. Other such courses are being promoted in the district.

An alert, harmonious membership, which includes nearly all of the eligible licentiates in this district, augurs success in the attainment of higher professional accomplishments, and the solution of our many social-economic problems.

Respectfully submitted,
A. E. Anderson, *Councilor,*
Fourth District.

FIFTH COUNCILOR DISTRICT

Monterey, San Benito, San Mateo, Santa Clara, and Santa Cruz Counties

To the President and the House of Delegates:

The county societies in the Fifth Councilor District, with the exception of one, have had an active year. Unfortunately, I was unable to attend the meeting at which President Peers and Secretary Warnshuis visited the Santa Clara County Society. However, their meetings with the Monterey and Santa Cruz county societies were an inspiration to the members and were well attended.

The postgraduate program at the Santa Clara County Hospital on January 29 was interesting and instructive, but, unfortunately, poorly attended.

From information gained, I believe there will be a larger attendance at the annual meeting in Coronado from this district than in the past.

Respectfully submitted,
Alfred L. Phillips, *Councilor,*
Fifth District.

SIXTH COUNCILOR DISTRICT

San Francisco County

To the President and the House of Delegates:

The San Francisco County Society has laid the groundwork for future progress by careful study of the many local and state problems which are so vital to the life of organized medicine and to the welfare of the individual members.

There is a greater desire for close coöperation than ever before. Following the leadership of Dr. J. C. Geiger, Dr. P. K. Gilman will do much to consolidate gains made in the past year, and will lead on to even better understanding of our problems and of one another.

The present great problem is the same that we have had with us for the past few years—hospital and health insurance. Our present attempt is to find a means of hospital insurance which will be acceptable to the hospitals and yet protect the practice of medicine.

Respectfully submitted,
Karl L. Schaupp, *Councilor,*
Sixth District.

SEVENTH COUNCILOR DISTRICT

Alameda and Contra Costa Counties

To the President and the House of Delegates:

Alameda County is still working on her hospitalization plan and hopes to have something definite to report soon. The plan is entirely under the guidance of organized medicine and the accredited hospitals of the East Bay.

Respectfully submitted,
O. D. Hamlin, *Councilor.*
Seventh District.

EIGHTH COUNCILOR DISTRICT

Alpine, Amador, Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo, and Yuba Counties

To the President and the House of Delegates:

All of the component county medical societies in the Eighth District of the California Medical Association have been visited one or more times during the past year. At these meetings the councilor has endeavored to report to the societies all matters of importance relative to the actions taken by the Council, and to bring to their attention such other matters as were deemed advisable relative to the findings of added interest in organized medicine.

The councilor accompanied President Peers, Secretary Warnshuis, Councilor Rogers, Attorney Peart and his associate, on their tour of visits to the societies in the Eighth District, and he was particularly pleased with the reception of the State Association officers by the component societies; also the extreme interest shown in matters brought to their attention incident to this visit. Special arrangements were made for meetings in order to accommodate the itinerary of President Peers. The meetings were well attended. A very keen interest is being shown by the membership in matters economical and political which bear a direct influence upon our State organization. Membership drives have been carried on, and practically all of the eligible physicians and surgeons in the various communities have accepted membership in their regional societies. Much has been accomplished, I am sure, by the frequent contacts between the councilor and the various societies, and it has become manifest that such interests must be constantly stimulated by the State Association officers representing them in the executive body.

Much interest was shown in matters pertaining to hospital and medical service plans, hospitalization in tax-supported hospitals, and medical legislative problems.

It was particularly gratifying to note at the Secretaries' Conference that we had a 100 per cent attendance from the Eighth District.

Respectfully submitted,
C. E. Schoff, *Councilor,*
Eighth District.

NINTH COUNCILOR DISTRICT

Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, Solano, Sonoma, and Trinity Counties

To the President and the House of Delegates:

A brief report of the medical societies' activities in the Ninth Councilor District during the year 1935 is submitted:

During the past year and since the submission of the preconvention report for 1934, I have made councilor visits to all the county medical societies in this district, and to most of the societies repeated visits have been made in order to inform them of the work of the Council and the activities of organized medicine in California.

As previously reported in California and Western Medicine, the Lake County Society held their meeting at Clear Lake Lodge on August 4, at which time their charter was presented to them.

On October 19, 20, 21, and 22, Doctor Peers and Doctor Warnshuis made their official visits to the medical societies of the northern part of the State. On this trip I was the guest of Doctor Schoff at meetings held in Marysville and Chico in the Eighth District. There was a joint meeting held at McCloud on October 20, with members from Shasta, Trinity, Lassen, Plumas, Modoc, and Siskiyou county societies, a combination of societies from both the Eighth and Ninth districts. Present also, were visitors from Medford, Oregon and San Francisco.

The interest that the physicians of these counties take in the California Medical Association is shown by the fact that these men all drove distances of from 35 to 180 miles to this meeting. Doctor Schoff and Mr. Peart returned to San Francisco after the meeting at McCloud, as they were unable to attend the meetings at Crescent City and Eureka, held on October 22.

The meeting at Crescent City was held with the physicians of Del Norte County at noon, and the evening meeting was held at Eureka, with Humboldt County physicians present. These were all special meetings, held to receive our president, Doctor Peers, and they were well attended and instructive to the members and the State officers.

Interest in organized medicine is steadily growing among the physicians of this district. Members are visiting adjacent county meetings. A spirit of good fellowship is being exemplified, and personally I am very proud of the medical societies in the Ninth District.

Respectfully submitted,
Henry S. Rogers, *Councilor,*
Ninth District.

III

REPORTS OF COUNCILORS-AT-LARGE

To the President and the House of Delegates:

The recent meeting of the county society secretaries at San Francisco was probably the greatest affair of the California Medical Association during the past year. Such meetings will undoubtedly help to weld the State Association into one solid mass.

Every opportunity is being taken to inform the local membership on important points.

The local societies should be more careful in their selection of delegates.

Respectfully submitted,
C. O. Tanner, *Councilor-at-Large.*

To the President and the House of Delegates:

As one of your councilors-at-large, it has not been my privilege to visit many of our component county units, but in the ones I have visited, it seems to me, the members are taking more interest in the Association, as a whole, and their drive for new members is having its results. I believe this renewed interest is due principally to the efficient work of our secretary, Doctor Warnshuis, and the splendid coöperation of our past and present Presidents Doctors Toland and Peers. This Association is to be congratulated for having secured the services of such a well-qualified colleague for the position as Secretary.

I also want to comment on the high standard and quality of our journal, California and Western Medicine. The Association is very fortunate in having the services of such an able editor. While the Council spent a lot of the Association's savings the past year, and some of us were not in sympathy with the cause, it was done by the order of the House of Delegates, and we hope it has done some good in educating our members.

Respectfully submitted,
W. H. Kiger, *Councilor-at-Large.*

To the President and the House of Delegates:

During the past year, as councilor-at-large, I have served as chairman of the Council and, in addition to the duties incident thereto, I have endeavored to discharge the following assignments:

1. Member of the Committee of Six, created by the special session of the House of Delegates at Los Angeles March 2-3, 1935.
2. The presentation of the case for the California Medical Association in the matter of the Ross-Loos appeal before the Judicial Council of the American Medical Association at Atlantic City on June 7, 1935.
3. Delegate from the California Medical Association to the 1935 annual session of the House of Delegates of the American Medical Association at Atlantic City, June 10-14, 1935.

In addition to these duties, during the past year I have addressed two lay meetings in an attempt to present the present status of health insurance in California and its possible future in California and to show the apparent impossibility of obtaining satisfactory compulsory health insurance laws in the State, not alone from the standpoint of medicine, but from that of the public also.

This year completes a three-year term as councilor-at-large, and in making this report I should like to stress the point that the Association, in the matters of legislative program, malpractice insurance, health and hospital insurance, and the attempt by hospitals to divide medicine into so-called professional and technical fields, is confronted by major problems that require the most earnest consideration, and in my opinion, for the protection of the future practice of medicine, some positive action by organized medicine.

Respectfully submitted,
T. Henshaw Kelly, *Councilor-at-Large.*

To the President and the House of Delegates:

Your councilor-at-large has attended all meetings of the Council and many meetings of committees. One trip to San Luis Obispo was made on invitation of that county society to meet with it.

Respectfully submitted,
Morton R. Gibbons, *Councilor-at-Large.*

IV

REPORTS OF STANDING COMMITTEES*

COMMITTEE ON ASSOCIATED SOCIETIES AND TECHNICAL GROUPS

Executive Group

William J. Kerr, Chairman, 1938
William H. Geistweit, 1936 John V. Barrow, 1937

To the President and the House of Delegates:

The only matters brought to the attention of this committee concern the Woman's Auxiliary. They are developing an active and efficient organization which should be of great value in the cause of medical science and practice. The wives of physicians are in the position of interpreters to the public. The Medical Association should profit by suggestions from this enthusiastic and loyal group, and should encourage them to originate suggestions.

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* Members of Standing Committees are urged to meet during the annual session and organize for the coming year, and to hold at least one regular meeting of their respective committee during the annual session.

We would like to suggest that our committee have an opportunity to meet with the other committees of the Society to discuss matters of common interest, either at the time of the annual meeting of the California Medical Association or at some other time convenient to all concerned.

It would seem that the Woman's Auxiliary should exert an influence in the assembly districts, and coöperate with the several county medical societies to bring matters of importance to the attention of the public, not only at the time of elections, but at all times. It is suggested that the coöperation of physicians could be secured to send information to their patients in coöperation with the medical societies and the Woman's Auxiliary.

Respectfully submitted,
William J. Kerr, *Chairman.*

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Executive Group

Fred B. Clarke, Chairman, 1938
W. R. P. Clark, 1936 Benjamin W. Black, 1937

To the President and the House of Delegates:

This particular standing committee's activity has been evidenced in giving consideration to measures and methods for bringing about a better understanding on the part of the public regarding questions of public and private health. Your committee has transmitted to the Committee on Public Relations recommendations that have been initiated in the form of public health institutes, newspaper publicity, speakers' bureau for lay audiences, and contacts with Parent-Teachers' organizations.

The results of these movements are imparted in a detailed report by the Committee on Public Relations.

Your committee has given much thought to the preparation of educational leaflets and their furnishing to members and to public corporations, to be included with their monthly statements. Financial expense for printing and distribution by members and utility corporations has prevented the carrying out of this proposal. To be effective, the following amount of leaflets would have to be printed:

For members, 6,480,000. (This provides each member with one hundred leaflets each month.)

For public utilities, 25,000,000 (twelve mailings in metropolitan areas).

The estimated cost for printing, distribution, etc., would be about $6,000 per year. These funds were not available.

Your committee is impressed by the value of such educational measures. We voice the hope that the House of Delegates will record action that will increase the Association's income in order that expanding activities may be carried out in fullest detail.

Respectfully submitted,
Fred B. Clarke, *Chairman.*

COMMITTEE ON HISTORY AND OBITUARIES

Executive Group

George D. Lyman, Chairman, 1937
Frank R. Makinson, 1938 J. Marion Read, 1936
The Secretary, ex officio The Editor, ex officio

To the President and the House of Delegates:

The Committee on History and Obituaries, of which Dr. J. Marion Read and Dr. Frank R. Makinson are members, and of which I have the honor to be the chairman, has held no meetings during the last year.

However, much material on California medical history has been collected. It is hoped to assemble this within the near future, in book form.

Particularly is the committee grateful to the many interesting accounts which Dr. George H. Kress of Los Angeles has turned over to the committee.

The Council recently authorized the editor to secure a biographical sketch of Dr. Joseph P. Widney, founder of the Los Angeles County Medical Association, which will appear in the April and May issues of California and Western Medicine.

Attention is called to this in order to urge every component county society to secure from living founders or cofounders, or early members, similar accounts. Also to suggest that old county society record books be sent for safekeeping to the central office of the California Medical Association. Request is made that every county society appoint a committee to take up this work during the coming year.

Following is a list of members of the California Medical Association whose deaths occurred during the last year:

IN MEMORIAM

Adler, Herman Morris, December 6, 1935, Berkeley.
Barkan, Adolph, August 28, 1935, Zurich, Switzerland.
Baxter, Donald Erskine, July 30, 1935, Glendale.
Bill, Philip August, August 27, 1935, San Francisco.
Blanchard, Lynne Harry, September 5, 1935, Oakland.
Burbank, William Winston, November 29, 1935, Long Beach.
Calder, Daniel H., July 18, 1935, Los Angeles.
Cole, George Llewellyn, August 19, 1935, Los Angeles.
Cressman, Ralph Gates, October 18, 1935, Stockton.
DuBois, Charles Warren, December 17, 1935, Los Angeles.
Dunlap, Florence Mary, November 13, 1935, Brawley.
Floersheim, Samuel, October 3, 1935, Los Angeles.
Garcelon, Harris, August 1, 1935, Arrowhead Springs.
Irwin, Stewart Vernon, July 1, 1935, Oakland.
Johnson, Carl Arthur, November 20, 1935, Imola.
Kapp, Russell William, May 5, 1935, San Jose.
Kiefer, Hugo Albert, October 26, 1935, Los Angeles.
Lynch, Edward Clarence, September 18, 1935, Montebello.
Macrae, Annie D., April 23, 1935, San Francisco.
Madden, Thomas Frederick, September 8, 1935, Fresno.
McNamara, Thaddeus M., Jr., July 15, 1935, Bakersfield.
Nahman, Adolph H., September 18, 1935, San Francisco.
Parsons, James J., October 18, 1935, Monrovia.
Poole, Richard E., June 13, 1935, Yountville.
Rehfisch, John Morse, September 15, 1935, San Francisco.
Ruediger, Gustav F., July 6, 1935, Pasadena.
Schroeder, Leo A., October 29, 1935, Los Angeles.
Smith, Rea, November 29, 1935, Los Angeles.
Shuman, Joseph R., March 10, 1935, Los Angeles.
Silliman, John C., October 27, 1935, Palo Alto.
Stern, Arthur Alonzo, July 11, 1935, Sacramento.
Trewhella, James S., February 11, 1935, Montebello.
Van Zwalenburg, Cornelius, July 23, 1935, Riverside.
Weaver, Archibald Carlton, October 25, 1935, Santa Monica.
Weger, George S., January 16, 1935, Redlands.
Weymann, Morie Frederick, January 13, 1935, Los Angeles.
Whitney, James L., March 12, 1935, San Francisco.

Respectfully submitted,
George D. Lyman, *Chairman.*

COMMITTEE ON HOSPITALS, DISPENSARIES AND CLINICS

Executive Group

Daniel Crosby, Chairman, 1936
John C. Ruddock, 1938 Karl L. Schaupp, 1937

To the President and the House of Delegates:

The Committee on Hospitals, Dispensaries, and Clinics has found the details of its work covered by your Public Relations Committee. Being cognizant of the details that were given consideration by the Public Relations Committee, and in sympathy with its conclusions, this committee has found nothing for its separate consideration.

Respectfully submitted,
Daniel Crosby, *Chairman.*

COMMITTEE ON INDUSTRIAL PRACTICE

Executive Group

Morton R. Gibbons, Chairman, 1938
Mott H. Arnold, 1936 Harry E. Zaiser, 1937

To the President and the House of Delegates:

During the last year no new problem and no claim for the attention of this committee have materialized.

The report of last year announced a ruling of the chairman of the Industrial Accident Commission that there would be no departure from the fee schedule for industrial accident practice until after hearing or investigation. There has been no further agitation on the question.

Whether or not, and in what manner, the insurance companies are living up to the fee schedule at this time this committee has no information.

The chairman of your committee has prepared a resolution which, if adopted by the House of Delegates will provide for local committees to review medical testimony in all hearings and court cases. Your committee recommends careful consideration of this resolution and feels that its adoption will be one step in advance toward removing some of the errors that have been quite prominent in the past.

Your committee will always welcome any information regarding personal experiences of members on the subject of industrial accident practice.

Respectfully submitted,
Morton R. Gibbons, *Chairman.*

COMMITTEE ON MEDICAL DEFENSE

Executive Group

George G. Reinle, Chairman, 1938
Fred R. DeLappe, 1936 John P. Nuttall, 1937

To the President and the House of Delegates:

This committee will submit a special report to the Council, for transmittal to the House of Delegates.

Respectfully submitted,
George G. Reinle, *Chairman.*

COMMITTEE ON MEDICAL EDUCATION AND MEDICAL INSTITUTIONS

Executive Group

Loren R. Chandler, Chairman, 1936
B. O. Raulston, 1938 John B. Doyle, 1937

To the President and the House of Delegates:

Inasmuch as the activities of the four medical schools in California are well known, and have been described adequately from time to time in bulletins and reports, your Committee on Medical Education and Medical Institutions has held no meetings during the year.

Respectfully submitted,
L. R. Chandler, *Chairman.*

COMMITTEE ON MEDICAL ECONOMICS

Executive Group

John H. Graves, Chairman, 1938
William R. Molony, Sr., 1936 Willard J. Stone, 1937

To the President and the House of Delegates:

Since many of the activities of this committee have become part of the program of the Committee on Public Relations, no regular meetings of the Committee on Medical Economics have been held. Correspondence between the members of the committee and the chairman has been maintained, and the chairman has regularly attended the meetings of the Public Relations Committee and presented the views of the Committee on Medical Economics.

Respectfully submitted,
John H. Graves, *Chairman.*

COMMITTEE ON MEMBERSHIP AND ORGANIZATION

Executive Group

E. Vincent Askey, Chairman, 1938
Dewey R. Powell, 1936 Thomas H. McGavack, 1937
The Secretary, ex officio

To the President and the House of Delegates:

The foundation of any organization is its membership. In a profession this basic structure should be representative; should be large enough to be considered the official voice of the entire profession. Following membership, organization comes next in importance.

Your Committee on Membership and Organization begs to report that, both in membership and in organization, the California Medical Association is not lacking when compared with other state organizations.

Much can be done, and must be done, however, to strengthen the basic structure. For reasons too obvious to mention here, the need for a larger and better organized membership is greater in California than in any other section of the United States. The work must go on. The responsibility for its accomplishment rests almost entirely with the secretaries of the various component county medical societies.

Your Committee on Membership and Organization can do little more than give every possible aid to these secretaries; to point out the need for increasing membership; to encourage them in their campaigns; to assist them with plans, and to arm them with arguments to present to prospective members.

Efficient membership work in each county must have, as a starting point, a knowledge of who are the nonmembers and who among them are eligible for membership. This has called for a survey which was made about a year ago by the secretaries of the county societies. The result of this survey was presented by Dr. Edward M. Pallette, president-elect, in the March issue of CALIFORNIA AND WESTERN MEDICINE, on page 211.

This survey showed that in one county 93 per cent of the doctors of medicine were members of that county society. Many of the smaller counties showed membership records of 70 per cent, or more, of the doctors in their counties.

Los Angeles County, with 58 per cent, and San Francisco County, with 52 per cent, are representative of the percentages to be found in the larger communities. The reason for this drop in percentages is known. The retired doctor of medicine, still licensed to practice, and the noneligible are found in greater proportion in the larger cities; especially is this true of California.

A study of this survey shows that in California only about 17 per cent of those who should be members are not members; a fact that warrants optimism and should encourage those who are carrying on this work.

One hesitates to urge a campaign for members. A campaign indicates an activity that is limited either by time or by results. A campaign usually comes to an end. The responsibility for increasing membership should at all times be recognized by county secretaries. Membership should be increased steadily and surely.

First, the eligible nonmembers should be contacted and sold on the value of membership. If they are eligible, and if they are sold on the value of the Association, they will become members. If they are not sold, the fault is not theirs—if they are truly eligible; if they are the type of men who understand what the preservation of their profession means to them and to the public, the fault rests with the one who solicited them, or in the lack of a worthwhile county organization.

A county secretary usually has, or should have, means of learning when a new doctor takes up his residence and practice in his county. That doctor should be contacted for membership as soon as possible after his eligibility is established.

The most important selling point, naturally, is found in the organization that is accomplishing things. In any county the county medical society may find plenty of things to accomplish. What such an organization must do varies in the different counties; it remains a county problem. However, the way to county activities, and the nature of these activities, to a large extent is made clear by a thorough understanding of the problems of medicine in California; by a knowledge on the part of the membership of what the California Medical Association is doing and must do for the benefit of each and every member, and for the preservation of the welfare of the public.

The fact that in each county one man is largely responsible for the dissemination of this information, was brought out in a very decided form at the meeting of county secretaries, held in San Francisco on January 18 of this year. The future of membership and of organization of the California Medical Association very largely is the responsibility of the secretaries of the component county medical societies.

Respectfully submitted,
E. Vincent Askey, *Chairman.*

COMMITTEE ON POSTGRADUATE ACTIVITIES

Executive Group

Clarence G. Toland, Chairman, 1938
F. F. Gundrum, 1936 John C. Ruddock, 1937
The Secretary, ex officio

To the President and the House of Delegates:

Your Committee on Postgraduate Activities, under the auspices of the California Medical Association, begs to report that the postgraduate activities, as ordered by the House of Delegates at Yosemite, are now firmly established.

During the past year there have been twelve conferences held in the following places: Riverside, San Bernardino, Modesto, Stockton, and San Jose.

Of course, this is pioneer work in this State, and will require some time to arouse the interest of the members of the component county societies. Your committee wishes to suggest that the brochure or announcement be very specific, and descriptive of clinics that are available to the various districts. For example:

"*Diseases of the Blood.*—Demonstration and discussion of cases of blood dyscrasias. Presentation of criteria for differential diagnosis of agranulocytopenia, purpura hemorrhagica, pernicious anemia, secondary anemia, leukemias, and bone-marrow deficiencies. A description of technique of bone-marrow punctures. Demonstrations of typical blood smears for microscopical diagnosis. Treatment of blood dyscrasias and application of various types of treatment to the cases demonstrated. Value of blood transfusions and x-ray as a therapeutic measure. Drug therapy. Liver therapy. Endocrine influence."

"When selecting this course it should be stated whether the entire subject is to be covered or whether the group desires only a part of the subject.

"The following doctors are available for this clinic:

M.D., San Francisco, University of California.
M.D., Sacramento, private.
M.D., Los Angeles, University of Southern California.
M.D., San Diego, private.
M.D., Los Angeles, College of Medical Evangelists.
M.D., San Francisco, Stanford.

"It is expected that patients with case records will be available for demonstration."

The entire announcement should be enlarged and made very specifically descriptive. This will materially help in the selection of suitable cases for demonstration, and also assist in the suitable selection of clinic courses.

It is essential that the announcement be printed on good paper, with an attractive cover, and that copies be made available through all medical groups in the rural communities of the State.

Secondly, it is desired by the medical profession adjoining San Francisco and Los Angeles that the clinical material of the San Francisco County Hospital and the Los Angeles County Hospital be made available to them at least once a year by means of a clinical demonstration, conducted jointly by the medical schools in San Francisco and Los Angeles, respectively, under the auspices of the California Medical Association.

Your committee has been hindered to some extent in advising the different county societies as to the value of the postgraduate conferences, because some of us are members of the Committee on Medical Exhibits at the San Diego Fair. Most of our available time has been given to this important matter, as it was very essential to complete the exhibit in as short a time as possible. I feel certain that next year some of us will be able to visit the different county medical societies in reference to the subject of postgraduate conferences.

We appreciate greatly the opportunity to serve the California Medical Association in this capacity.

Respectfully submitted,
Clarence G. Toland, *Chairman.*

COMMITTEE ON PUBLICATIONS

Executive Group

Percy T. Magan, Chairman, 1937
Ruggles A. Cushman, 1938 Oscar Reiss, 1936
The Editor, ex officio The Secretary, ex officio

To the President and the House of Delegates:

Your Committee on Publications is grateful that, in spite of the national financial stringency producing lessened income from advertising sources, our official journal has been enabled to bring to all physicians in the State its continued messages of progress relative to scientific and organized medicine. We are glad to say that it is very rare that a written communication is received containing criticisms of California and Western Medicine. This indicates that the constituency of the California Medical Association must be persuaded that the official publication presents with fairness and credit the activities of the Society as regards both their professional and organization work.

During the year that is past the editor submitted to us his plans to emphasize the organization activities of the Association by changing the position of the editorial section in the Journal from the middle thereof to that of the initial pages of each issue, and to further call attention to the topics under discussion by the use of blackface subheadings. Naturally enough, the committee was in hearty accord with this plan, and it is our belief that the new form makes for better appearance as well as serving a distinct and valuable purpose in enabling the readers to more easily acquaint themselves with the current organizational problems that are of importance to the Association and its component county societies.

In these days of stress and strain and social-welfare activities it will be clear that there are many problems confronting the medical profession, and that solutions in whole or in part must be found if the interests of the doctors as individuals and as a professional group are to be properly safeguarded. Because of this it is more apparent than ever that there must be a printed means of intercommunication to carry the messages from the State associations and the component county societies to all members of the California Medical Association. Without this it would be practically impossible to secure anything like unanimity of thought and action. Certainly, at the present time such harmonious agreement on what is to be done and the manner in which certain ends are to be attained is vital in order that the energy of the Association be not side-tracked or neutralized through unnecessary or avoidable argument or differences of opinion among its members.

As in previous reports, your Committee on Publications is of the opinion that California and Western Medicine stands in the front rank of the column of official publications as issued by other state medical associations, and reflects great credit upon the doings of the California Medical Association.

It is our understanding that the editor in his report will advise a temporary increase in the number of pages of California and Western Medicine in order to permit the early printing of papers read a year ago at Yosemite. To this we give our hearty approval and trust that the House of Delegates will so authorize.

In closing, we bespeak for California and Western Medicine the kindly and hearty support of the House of Delegates and the Council. This has been graciously accorded in the past, and we are sure that our official publication is doing better work today than in any period of its history. It is without controversy that California and Western Medicine is destined to play a fundamentally vital part in the promotion and forwarding of the policies of the California Medical Association.

Respectfully submitted,
Percy T. Magan, *Chairman.*

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Executive Group

Junius B. Harris, Chairman, 1938
Fred R. DeLappe, 1936 E. T. Remmen, 1937
The President, ex officio The President-elect, ex officio

To the President and the House of Delegates:

At the time of our report one year ago we were in the midst of a legislative session. Many of our members have heard detailed accounts of what transpired at that session through reports presented at meetings of our component county societies. However, a brief summary is in order at this time as an indication of some of the problems facing us in the near future.

The legislature was in session for a total of 161 days. From early January until midnight of June 16, 1935. This is an all-time record in length of session, and there was also an all-time record in the number of bills introduced—3,951. It was necessary for your representatives to go through all of these 3,951 bills, carefully scanning each one, and pick out those dealing with questions of professional standards and public health. We found 208 bills with some reference to public-health questions. In addition to these bills there were more than five hundred skeleton bills, which required constant, daily watching. Some of these did develop into rather pressing issues.

There were twenty-four committees before which public health measures were considered. These committees were in session from early morning until midnight, and it was necessary for your representatives in Sacramento to not only watch carefully the procedure in these committees, but to keep a thorough check on all legislative activities. This was almost a twenty-four-hour-per-day job.

A brief summary of some of the bills follows:

Assembly Bill 2401, the so-called "Humane Pound Act," was with us again. It was tabled in committee after we had presented data showing that the same forces active in its support were also active in antivivisections societies. An attempt to lift it from the table by a vote of the general body of the Assembly was decisively defeated. The proponents of this measure made good their threat to "take it to the people," and are now circulating petitions to place this measure upon the ballot next November as an initiative proposition. Their literature states that they have the necessary funds to circulate the petitions.

A series of four chiropractic bills died in committees without reaching the floor of the legislature.

In our report one year ago we called attention of our members to "county medicine" as one of the most important issues of the legislative session, warning that attempts would be made to "open up" county hospitals. Assembly Bill 2397, introduced by Mr. Heisinger of Fresno County, attempted to establish a system of "county health insurance" through county hospitals. Defeated in its original form the bill was amended to provide for "hospital districts," to be set up by boards of supervisors. After many hearings the bill failed by the narrow margin of two votes to get out of committee and onto the floor of the Assembly. In an attempt to regulate county hospitals your Council ordered the preparation and introduction of Assembly Bill 954. This was vigorously opposed by farm groups, labor groups, representatives of county supervisors, and was defeated in committee.

Senate Bill 454 and Assembly Bill 1097, providing for systems of compulsory health insurance, were given extensive hearings by committees and finally referred back to these committees without action by the Senate or the Assembly. Special committees were named by both the Senate and the Assembly to continue the study of this subject and report at the next session of the legislature, which convenes on January 4, 1937.

Senate Bill 471 was the most vigorously contested measure of the entire session. It related to medical and hospital service insurance. It was given strong backing, and for over three weeks was a hotly-contested issue before the Assembly. It was only through the splendid coöperation of our members in the various legislative districts of the State that the assemblymen were informed of the true nature of the measure when amendments were adopted that removed the vicious features of the bill. It was then withdrawn by its sponsors.

The State Board of Medical Examiners secured the introduction of Senate Bills 154, 155, and 468. These had to do, respectively, with some changes in the definition of "unprofessional conduct," graduates of foreign medical schools, and providing for injunctions against violators of the Medical Practice Act. All three bills passed the legislature with practically no opposition, but only one—the foreign graduate bill—was signed by the Governor. The others were given a pocket veto.

Two bills of particular concern to the public were Assembly Bills 1918 and 2158, having to do with inspection of patients' records by attorneys in pending or contemplated court actions. We opposed these on the grounds that they were in violation of the relationship between patient and physician. They were killed once in committee, but were revived and had to be defeated a second time.

Assembly Bill 1037 would have placed x-ray laboratories under supervision of the State Board of Health. This was amended a number of times to meet objections, and finally passed through the legislature with but little opposition. However, the Governor gave it the pocket veto.

These are just a few of the highlights of a legislative session that was exceedingly important from the standpoint of the public health and the protection of professional standards.

Since the legislature adjourned we have caused detailed reports to be presented at fifty-three meetings of members of our profession or allied groups in an attempt to arouse a realization of the necessity for active interest in public health legislation. Many of the issues referred to above will again be before the legislature. The question of "county medicine" is particularly pressing with numbers of farm groups and labor groups committed to a program of "public hospitalization."

This is election year. The primary election will be held in August, and the general election in November. Under provisions of a new law all voters must re-register. May we urge that all our members register to vote, and make certain that members of their families, their employees, and friends are registered; that our members contact candidates for the legislature, discuss with them the various problems of public health legislation and give them the advice and information that legislators so repeatedly seek, in order that they may act intelligently for the best interests of the public.

Respectfully submitted,
J. B. Harris, *Chairman.*

COMMITTEE ON SCIENTIFIC WORK

Executive Group

Frederick C. Warnshuis, Chairman
J. Homer Woolsey, 1938 Lemuel P. Adams, 1937
F. M. Pottenger, 1936 John C. Ruddock, ex officio
H. Glenn Bell, ex officio

To the President and the House of Delegates:

The scientific program, as published, summarizes the work of your Scientific Committee, which is of the opinion that the program reflects scientific progress and affords educational opportunities.

Your committee, in conference with section officers, gave serious consideration to the problems that arise by reason of the expansion of our program and the very marked interest and increase in attendance at our annual meetings, and recommend that the number of sections be reduced. There are two important factors: (1) Finding satisfactory auditoriums to accommodate the several sections. (2) Assigning session hours to the twelve scientific sections. Another factor, though not the responsibility of this committee, is the selecting of a place for our annual meeting that will afford ample hotel accommodations for those desiring to attend, and auditoriums for section meetings and exhibits.

This problem has been referred to the Council, with the recommendations that the Council study the problem.

Your committee tenders its appreciation and thanks to our invited guests and section officers, and to those members who are contributing to the success and value of this program.

Respectfully submitted,
F. C. Warnshuis, *Chairman.*

COMMITTEE ON PUBLIC RELATIONS

Charles A. Dukes, Chairman, Cancer Commission.
Fred B. Clarke, Chairman, Committee on Health and Public Instruction.
Morton R. Gibbons, Chairman, Committee on Industrial Practice.
Junius B. Harris, Chairman, Committee on Public Policy and Legislation.
Daniel Crosby, Chairman, Committee on Hospitals, Dispensaries and Clinics.
E. Vincent Askey, Chairman, Committee on Membership and Organization.
John H. Graves, Chairman, Committee on Medical Economics.
Robert A. Peers, ex officio, President of California Medical Association.
Edward M. Pallette, ex officio, President-elect.
Frederick C. Warnshuis, Secretary.
Hartley F. Peart, Attorney, Legal Counsel, California Medical Association.

To the President and the House of Delegates:

While your committee has conveyed to the membership, from month to month, through the Department of Public Relations in California and Western Medicine, salient features of its scope of activity, these are now summarized for the information of delegates and members. This report concludes with certain recommendations.

I

Your committee recognized the need of conveying to the lay public definite and authentic information related to medical services and the scientific resources our medical profession possesses for the prevention of disease, conservation of health, and the alleviation of physical ailments and deformities. Evidence was at hand that the public was not informed in satisfactory degree as to measures and scientific methods that are attainable for its best physical welfare. It was further recognized that this lack of knowledge was a fundamental factor in causing lay persons to consult unqualified advisors. The course to follow to obtain competent medical advice and care was a darkened path to many average individuals.

Your committee, therefore, devoted its work to remedying this situation, and addressed its efforts along the following avenues:

(a) *Press Publicity.*—A press release article was sent weekly to some 250 newspapers in California. These articles were educational, advisory, and informative. They presented facts related to preventive medicine, physical defects and degenerations, first aid, emergencies, and approved methods and measures of treatment. It has been gratifying to learn through a press-clipping service a very satisfactory publication of these articles, especially by the newspapers in less populated centers, thereby supplying to these readers often their only authentic source of information. It is further gratifying to report a gradually increasing number of letters of inquiries that have been received in response to these articles.

Supplementing this educational program, unstinted credit is given to the radio broadcasts sponsored by the Los Angeles County Medical Association, San Francisco County Medical Society, Kern County Medical Society, and several other component units. All these units deserve and are accorded well-merited credit and appreciation.

(b) *Fairs.*—In former years, our Association has sponsored educational exhibits at the State and Los Angeles County fairs. The conclusion was reached that these exhibits exerted but a limited educational influence. Upon mature deliberation it was determined to abandon such exhibits and replace them by conducting a series of visualized education by means of exhibits in the form of Public Health Institutes sponsored by county units. Our director was instructed to prepare such exhibts and arrange an itinerary. Some $2,000 was expended, and the first Health Institute was conducted in Oakland. A state-wide itinerary was prepared, but was temporarily abandoned because an opportunity presented itself to use these exhibits in the San Diego Exposition. It is contemplated to resume this educational program in the fall.

(c) *San Diego 1936 Exposition.* — By reason of the initiative of the San Diego County Medical Society, we were accorded the opportunity to join with that constituent unit in sponsoring, directing, supervising, and censoring a Hall of Medical Science in the 1936 San Diego Exposition. With Council approval, and with a state committee, of which Dr. C. G. Toland is chairman and Dr. Lyle Kinney local chairman, the Director of Public Relations contacted the Exposition management. Suffice it to state that a building with 22,000 square feet of space in the Exposition grounds was placed at our disposal as a Medical Hall of Science, and is now open to Exposition visitors. Members are urged to visit this building, which contains a goodly number of exhibits that are being featured in the Exposition's publicity.

It may not be amiss to state at this time that plans are under way and arrangements are being made to sponsor a similar Hall of Medical Science for the 1938 San Francisco Exposition.

II

COÖPERATION WITH GOVERNMENTAL AND LAY AGENCIES

Surveying other fields that afforded opportunities for contributing to public and professional welfare, it was perceived that our governmental and lay agencies created avenues for extension work. Under committee approval, our director approached, established contact and subscribed coöperation with the following agencies:

Department of Education
Board of Medical Examiners
Board of Health
State and Federal Forestry Departments
Highway Traffic
State Institutions
Milk Commission
State Chamber of Commerce
Parent-Teachers' Association
Federation of Women's Clubs
Junior League
Y. W. C. A.

It is not possible to cite specific and detailed tangible results from these contacts. Your committee, however, is confident that desired ends are being given to the medical profession as an important and vital group in all civic movements, and that wholesome influence is being acknowledged. Our correspondence from these agencies justifies this conclusion.

III

Hospital Insurance Plans.—When the 1935 Legislature enacted Assembly Bill 246 authorizing nonprofit corporations to write hospital service insurance, the Council delegated to the Committee on Public Relations the study of this law's provisions and to make recommendations as to related Association policies and participation. After much study and investigation, and a conference by our director with Washington and Oregon operations of similar plans, the committee formulated the following conclusions which were approved by the Council:

1. It was not advisable for our Association to establish a hospital insurance plan for state-wide application.

2. That our Association assume a supervisory rôle and make available advisory service to any hospital or group of hospitals contemplating establishing hospital insurance.

3. That the following provisions must be incorporated in any hospital insurance proposal:

(*a*) Free choice of hospital.

(*b*) Free choice of an accredited physician.

(*c*) Medical care or services are not to be included.

(*d*) That laboratory diagnostic services constitute the practice of medicine.

(*e*) That the diagnostic specialties in medicine cannot be divided into professional and technical divisions.

(*f*) That benefits shall be those of hospital services only, and exclusive of medical services.

To bring about the recognition and acceptance of these vital principles, conferences were arranged and held with chiefs of staffs, hospital representatives, and committees from diagnostic specialties. Progress is being made, and it is anticipated that agreeable, mutually acceptable principles and policies will eventuate.

Your committee, while endorsing the principle and purpose of hospital insurance, recognizes that our Association must be alert to the possible avenues along which expansion may take place. It is purposed to resist expansion that would include medical care.

IV

Lay Meetings.—Effort has been unsuccessfully made to enroll a corps of speakers from county members in order to make available to lay groups, luncheon clubs, and parent-teacher organizations, speakers capable of presenting medical discussions. Members have been reluctant to volunteer for such assignments. The quest will be to perfect such service during the coming year. As a substitute for this function, our director during unengaged periods has addressed the following groups:

San Francisco Y. W. C. A.
San Francisco Executives' Organization
Occidental College Economic Conference
Several Rotary Clubs
Senior students of Stanford and University of California.

Conferences were also had with health committees of lay state organizations.

V

Miscellaneous.—During committee meetings, consideration has been given to and plans are being developed that will record the following features:

1. A series of educational leaflets for distribution with gas and electric bills.

2. A series of cards for distribution to patients and office display.

3. Participation in programs of state lay organizations.

4. A program for women's medical society auxiliaries.

5. Information bureau.

6. Bibliographies of medical subjects for public libraries.

In presenting this report of action and citing expansion objectives, your committee is of the opinion that it is meeting and fulfilling the purposes and functions that were assigned.

In conclusion, the following recommendations are made:

1. That county societies be requested to appoint local committees on public relations to initiate in their respective localities all of the central committee's activities.

2. That county societies make available a corps of speakers for assignment to address lay meetings.

3. That the committee's future plans be approved.

Respectfully submitted,
C. A. Dukes, *Chairman.*

V

REPORTS OF COMMISSIONS, SPECIAL AND COUNCIL COMMITTEES

AUDITING COMMITTEE

Executive Group

Karl L. Schaupp, Chairman
Morton R. Gibbons O. D. Hamlin

To the President and the House of Delegates:

In compliance with the provisions of the by-laws, we submit a draft of the 1936–1937 budget.

BUDGET—1936-37

Estimated Income:

1. Membership dues—5,400	$54,000.00	
2. Earned interest	50.00	
3. Herzstein Fund	750.00	
4. Advertising sales	25,000.00	
5. Commissions	500.00	
6. California and Western Medicine subscriptions	500.00	
7. Reprint sales	1,000.00	$81,800.00

Estimated Expenses:

(*a*) Public Relations	$ 2,500.00	
(*b*) Postgraduate conference	1,500.00	
(*c*) Legislative expenses	5,000.00	
(*d*) Committee expenses	1,000.00	
(*e*) Legal expenses	5,000.00	
(*f*) Public health institutes	1,500.00	
(*g*) Annual meeting	750.00	
(*h*) Delegates to American Medical Association	750.00	
(*i*) Council expense	1,500.00	
(*j*) Executive Committee expense	500.00	
(*k*) Printing California and Western Medicine	25,000.00	
(*l*) Editor's salary	4,000.00	
(*m*) Clerical expense, official journal	3,000.00	
(*n*) Rent	2,500.00	
(*o*) Telegraph	300.00	
(*p*) Stationery—Certificates and reports	1,000.00	
(*q*) Postage	1,000.00	
(*r*) Office supplies	250.00	
(*s*) Typewriters	500.00	
(*t*) Express and cartage	100.00	
(*u*) Clerical office assistants	6,000.00	
(*v*) Travel expense	1,500.00	
(*w*) Transfer files	250.00	
(*x*) Department of Public Relations, salary	5,000.00	
(*y*) Secretary's salary	7,500.00	
(*z*) Reserve	2,900.00	$81,800.00

BUDGET—1935-36

Estimated Income:

1. Membership dues—5,200	$52,000.00	
2. Earned interest	100.00	
3. Herzstein bequest	750.00	
4. Advertising income	20,000.00	
5. Commissions	500.00	
6. California and Western Medicine subscriptions	500.00	
7. Reprint sales	1,500.00	
8. Sales of books	180.00	
9. Estimated income		$75,530.00

Estimated Expenses:

10. Public Relations	$ 1,000.00	
11. Postgraduate work	1,500.00	
12. Legislative expense	4,400.00	
13. Committee expense	1,000.00	
14. Legal expense	6,000.00	
15. Fair exhibits	1,000.00	
16. Annual meeting	1,000.00	
17. Delegates, American Medical Association	1,500.00	
18. Woman's Auxiliary	150.00	
19. Council travel expense	750.00	
20. Executive Committee travel expense	500.00	
21. Printing California and Western Medicine	20,000.00	
22. Editor's salary	4,000.00	
23. Journal assistance	2,800.00	
24. California and Western Medicine miscellaneous	500.00	
25. Rent	3,500.00	
26. Telegraph	300.00	
27. Stationery supplies	1,000.00	
28. Postage	750.00	
29. Office supplies	250.00	
30. Express and cartage	100.00	
31. Stenographic services	6,000.00	
32. Travel expense	1,200.00	
33. Office files	250.00	
34. Director of Public Relations, salary	4,000.00	
35. Secretary's salary	6,000.00	
36. Publicity estimate	3,000.00	
37. Reserve	6,080.00	
38. Estimated expenses		$78,530.00

COMMENTS ON BUDGET FOR 1936-1937

1. In last year's budget we estimated the membership dues on the basis of 5,200 members, whereas we had a gain in membership, making a total of 5,347 members. I estimate that during the coming year, due to our visits to county societies and the activities of the officers of the Association, an increase of at least two hundred members over last year.

2. Our funds have been depleted. We have only a small amount of money in the savings account, so our income from interest accrued will be materially reduced.

3. The Herzstein Fund is a fixed figure.

4. Last year I estimated the advertising sales as approximately $20,000. By reason of advertising campaigns, the advertising in 1935 reached the figure of $23,000. I, therefore, estimate that our advertising sales for 1936 will be $25,000, and I feel that possibly it will exceed that amount because every month we are securing new contracts.

5-6. These are conservative estimates based on past years.

7. You will recall that I introduced this figure last year, based upon the Association taking over the sale of reprints of articles appearing in California and Western Medicine. I made a definite agreement with the James H. Barry Company for the printing of reprints and furnishing them to the authors. During this past year our profit was approximately $700, and that amount can be increased to the amount indicated on the proposed budget.

EXPENSES

(*a*) The Committee on Public Relations should have this appropriation because of its activities. You will recall that it has assumed the press publicity activity, and this has been accomplished at a very small cost and with a large saving over the proposal which was made at Yosemite for a publicity director with an appropriation of $5,000. I feel, therefore, that with the other activities of the Public Relations Department an appropriation of $2,500 is a just one.

(*b*) Our Postgraduate Conferences will perhaps not exhaust this appropriation; but this amount should be made available for the plans the committee has in mind.

(*c*) Legislation expenses are placed at this figure to cover the activities of the Legislative Committee, but do not cover any special legislative work.

(*d*) This amount is to cover the expenses of our Standing Committee, and I see no reason why it should be increased for the coming year.

(*e*) Our legal counsel has a retainer of $4,000, and $1,000 should cover any extra expenses.

(*f*) Public Health Institutes, the first of which was conducted this past month, supplant the former expenses that were incurred at the State Fair and also at the Los Angeles Fair.

(*g*) I have tentatively fixed this figure as expenses for our annual meeting, because I am not sure whether we will again be able to duplicate our 1935 experience whereby the return from rental and exhibit space not only paid all the expenses of the annual meeting, including the traveling expenses of the officers of the Association and guest speakers, but netted us a profit of a little more than $700.

(*h*) The American Medical Association meets in Kansas City in 1936 and, therefore, the traveling expenses of the delegates will not be as large this year as last, when they had to travel to Atlantic City.

(*i*) Are supplementary, and cover the expenses of the Council and the

(*j*) Executive Committee.

(*k*) This is a conservative estimate of the publication costs of CALIFORNIA AND WESTERN MEDICINE, and cannot be reduced.

(*l*) This is a fixed figure.

(*m*) This is a fixed figure.

(*n*) This is a fixed figure.

(*o*) This is an estimate based on previous tabulations.

(*p*) This sum covers the necessary office stationery—for correspondence, for membership certificates, envelopes, report-blanks, etc.

(*q*) This is a fixed figure based on the experience of the past year.

(*r*) Includes the minor office supplies, such as pens, pencils, clips, loose-leaf blanks for ledgers, etc.

(*s*) Is a necessary expenditure, because the typewriters in the office are in very poor condition; they are old and practically worn out, so that we will undoubtedly have to purchase at least three new typewriters during the coming year.

(*t*) This is a fixed figure.

(*u*) This is a fixed figure, under appropriations that have been made.

(*v*) This is for the traveling expenses of the secretary, and while the amount will not be consumed, it is arbitrarily so indicated.

(*w*) Files in the office are filled, and it will be necessary to purchase transfer files that can be secure for that amount.

(*x-y*) Of course, these sums are subject to the action of the Auditing Committee and the Council, and are placed at that amount in conformity with the understanding that was had with Doctor Toland and his committee.

(*z*) Is self-explanatory.

There is under consideration the question of sponsoring a law for a qualifying certificate. An estimate has been made for the cost of securing such initiative in the neighborhood of $35,000. If the Council determines to proceed with that project, then it will be very necessary for the Council to consider increasing the membership dues to $15 per year, and submit this proposal to the House of Delegates. If the dues are raised, it will bring an added revenue of $27,000. I merely mention this in order that the Auditing Committee may give consideration to this financial problem and make its recommendations to the Council.

Respectfully submitted,
Karl L. Schaupp, *Chairman.*

CANCER COMMISSION

Executive Group

Charles A. Dukes, Chairman
Lyell C. Kinney, Vice-Chairman
Alson R. Kilgore, Secretary
Orville Meland, Secretary for Southern Section
Harold Brunn Gertrude Moore
Henry J. Ullmann A. Herman Zeiler
Clarence G. Toland

To the President and the House of Delegates:

During the current year the Cancer Commission has undertaken to coöperate with the American Society for the Control of Cancer in a sustained program of public education. Plans are now (March) being made, and it is expected that work will shortly be begun.

The Council authorized reprinting the Cancer Commission studies in book form, at a low price, for general sale, through agreement with J. W. Stacey, Inc. Printing is now in progress, and it is expected that the book will be ready for exhibit at the San Diego meeting.

Respectfully submitted,
C. A. Dukes, *Chairman.*

COMMITTEE ON ARRANGEMENTS—ANNUAL SESSION

C. O. Tanner, Chairman
Harold D. Barnard Ralph Kaysen
C. B. Bernardini R. C. Launsberry

To the President and the House of Delegates:

Most all of the arrangements for the coming meeting at Coronado have been perfected through the office of the state secretary. Our committee has no report of action taken, but is ready at all times to be of assistance at the time of the annual meeting. We have checked over the plans with the management of the Coronado Hotel and other San Diego hotels, and feel that there will be ample accommodations, meeting rooms, etc.

The Exposition will be open, and Tuesday, May 26, has been officially designated as California Medical Association Day.

Respectfully submitted,
C. O. Tanner, *Chairman.*

COMMITTEE ON DISCIPLINARY PROCEDURES

Executive Group

W. W. Roblee, Chairman
L. A. Packard C. Kelly Canelo
Oscar Reiss E. Vincent Askey

To the President and the House of Delegates:

The committee has held several meetings and, in consultation with the Council and our attorney, a bylaw will be presented to the House of Delegates which, if it is adopted, will assure uniform, orderly procedure in these cases.

PROPOSED AMENDMENT TO THE BY-LAWS OF THE CALIFORNIA MEDICAL ASSOCIATION GOVERNING DISCIPLINARY PROCEDURE FOR COMPONENT COUNTY MEDICAL SOCIETIES

Introductory Note: The following amendment to the California Medical Association by-laws is drafted in compliance with the recommendation of the Committee on Discipline and Ethics of the California Medical Association. In order to effectuate a harmonious result, and in order that the by-laws as amended may not lack organization, the following amendments take the form of, first, an outright repeal of Sections 2 to 5 inclusive of Chapter II of the by-laws of the California Medical Association and, second, a substitution therefor of new Sections 2 to 5 inclusive of Chapter II, incorporating sections governing disciplinary procedure in the component county societies as well as disciplinary procedure in the California Medical Association itself. This method makes the amendment somewhat bulky, but in the end it will avoid a great deal of the confusion that would necessarily arise if specific new sections should be added to Chapter II without regard to the resultant lack of organization.

AMENDMENT NO. 1

Chapter II of the by-laws of the California Medical Association is hereby amended by striking out "Chapter II—Membership" and inserting in lieu thereof, the following: "Chapter II—Membership (Including Procedure on Loss of Membership)."

AMENDMENT NO. 2

Chapter II of the by-laws of the California Medical Association is hereby amended by striking out all of Sections 2, 3, 4, and 5 of said Chapter II and by inserting in lieu thereof the following:

SECTION 2. TERMINATION OF MEMBERSHIP

(a) *By Expulsion from Component County Society.*—Expulsion from any component county society after due proceedings in accordance with those by-laws, upon becoming final, terminates all the rights and privileges in this Association of the member so expelled.

(b) *By Failure to Pay Dues.*—If the annual assessment of dues payable to this Association by any member of this Association is not paid on or before April 1 of any year, such member shall automatically lose his membership in this Association as of April 1 of such year. The Council of the Association, in its discretion, upon payment of such unpaid dues, and any other assessments, or dues accruing thereafter, may at any time reinstate such member.

(c) *By Revocation of Physician and Surgeon's Certificate.*—Any active member whose license to practice medicine and surgery in the State of California is revoked shall, upon the receipt of sufficient written evidence of such revocation and of its legal finality by the secretary of this Association, thereupon cease to be a member of this Association.

(d) *Acts and Conduct Subjecting Member to Censure, Suspension or Expulsion by Component County Society.*—Any active member of a component county society who has been adjudged guilty of a criminal offense involving moral turpitude, or who has been duly adjudged guilty by his society, in accordance with the procedural requirements of these by-laws, of gross misconduct as a physician or a surgeon or of a violation of any of the provisions of the constitution or by-laws or principles of professional conduct of his society or of the principles of medical ethics promulgated from time to time by this Association or by the American Medical Association, shall be subject to censure, suspension or expulsion from his society by such component county society.

(e) *Right of Committee on Membership and Organization of this Association to Prefer Charges.*—If a member of this Association is believed by the Committee on Membership and Organization of this Association to be guilty of conduct justifying censure, suspension or expulsion from his component county society, said committee may prefer written charges in the form and in the manner hereinafter specified with the secretary of the accused member's county society and may, through a member or members thereof, perform all acts that are reasonably necessary and proper in the prosecution of such charges.

Section 3. Procedure to Be Followed by Component County Societies with Respect to Involuntary Loss of Membership

(a) *Disciplinary Procedure for Component County Societies.*—The procedure to be followed by each component county society with respect to the censure, suspension or termination of membership of a member thereof shall be:

(1) *Charges—Formal Requirements.*—A formal charge must first be made. Such charge must be in writing, signed by the accuser, and if made by a person other than a member of the Society must be sworn to before an officer of the State of California authorized to administer oaths. Charges must state the acts or conduct complained of with reasonable particularity.

(2) *Charges—Filing—Secretary's Duties—Presentation to Board of Directors (or Grievance Committee).*—Charges must be filed with the secretary of the accused member's society. At the first regular or special meeting of the Board of directors of such component county society held after charges are filed, the secretary must present said charges to the Board. The Board of Directors shall then or at any adjournment of said meeting, but not more than thirty days after the date of such regular or special meeting, consider the charges, and in its discretion determine whether or not further proceedings shall be conducted. If the Board determines that no further action shall be taken, the charges shall be dismissed.

If a component county society has no Board of Directors and more than ten members, its members must, at a regular meeting of the society, elect a grievance committee of not less than five (5) active members in good standing, two members shall be designated by the society to serve for a period of one year, two members shall be designated to serve for a period of two years, and one member shall be designated to serve for a period of three years. At the expiration of the terms of office of the respective members of such committee, successors shall be elected in like manner to serve for a period of one year each. Such grievance committee shall exercise all the powers and perform all of the duties herein conferred upon boards of directors in the manner and within the times herein provided. If a society has less than eleven members, the entire society, exclusive of the accuser and accused, shall constitute the grievance committee. All references herein to boards of directors shall be deemed to include boards of councilors, grievance committees, and component county societies of ten members or less.

(3) *Service of Charge Upon Accused.*—If the Board of Directors determines that further action, with respect to said charges, shall be taken, the Board must within fifteen (15) days after such decision cause a copy of the charges to be served upon the accused by personally delivering a copy thereof to him, or by depositing a copy thereof in the United States mail, registered and addressed to the accused either at his last known office or at his last known residence.

(4) *Time and Place for Hearing—Service of Notice Thereof.*—The Board of Directors shall, at said meeting at which its decision to proceed is made, fix a time and place for a hearing of said charges. Written notice of the time and place set for the hearing shall be served upon the accused within fifteen (15) days by personal delivery or registered mail. The time so set for a hearing shall be not less than fifteen (15) days after the accused has been served, as aforesaid, with a copy of the charges and with the notice of the time and place set for the hearing; said hearing must be held within the county in which the accused holds his county society membership. The hearing before the Board of Directors must actually commence within *six months* from the date of the filing of written charges. Failure to comply with this requirement shall constitute an automatic dismissal of the charges.

(5) *Right of Accused to Answer—Time to Answer—Formal Requirements.*—The accused may, not less than five (5) days before the time set for a hearing, answer said charges. The answer shall be in writing and the original and three copies shall be filed with the secretary of the society, provided, however, that the failure of the accused to answer shall not be deemed to be an admission of the truth of the charges or a waiver of the accused's right to a hearing with respect to said charges.

(6) *Rules Governing Hearing—Duties of Referee of Society—Advice as to Procedure Only.*—The Board of Directors shall give ample opportunity both to the accuser and the accused to be heard in person and to present all testimony, evidence, or proofs which the accuser or the accused may deem necessary, provided that the Board may reject all testimony, evidence, or proofs which in the judgment of the Board are immaterial, irrelevant or unnecessarily repetitious. Neither the accused nor the accuser shall be represented by an attorney at law. The Board in its discretion may be represented by a referee, who, may, but need not, be a member of this Association, and who shall be appointed by the Council or Executive Committee of this Association, to advise the Board, the officers of the society, the accuser and the accused, with respect to procedure only. It shall be the duty of said referee to answer all procedural questions submitted by said persons and, on his own initiative, to call attention to any procedural errors.

(7) *Record of Proceedings—Shorthand Reporter Discretionary—Duty of Secretary to Preserve Record—Right of Accused to Copy.*—The secretary shall preserve the original of said charges with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, the original notice of the time and place set for the hearing with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, and the original of the answer filed by any member accused if an answer be filed. At the hearing, the Board of Directors may, in its discretion, and at the expense of the society, employ a competent shorthand reporter to record and transcribe into typewriting testimony adduced on behalf of the accuser and the accused. If the Board shall decide not to employ a reporter, then the secretary of the society shall be present and shall keep and prepare a summary of all testimony adduced. The original charges with certificate of service thereof, the original notice of time and place for hearing with certificate of service thereof, the answer or answers, if any be filed, all documentary evidence introduced at the hearing, the typewritten transcript of the testimony or the secretary's typewritten summary, and the written decision of the Board of Directors shall constitute the record of the entire proceedings. The secretary shall, upon receipt of a sum sufficient to defray the cost thereof, cause a copy of such record to be transcribed and furnished to the accused. The secretary shall keep such record and, in the event of an appeal to the Council of this Association, shall upon due request of its secretary transfer said record to the Council.

(8) *Decision of Board—When Must Be Written—Rules Governing Vote of Board.*—The Board of Directors, after having given the accuser and the accused member full opportunity to be heard, shall conclude the hearing and shall render its decision in writing not more than thirty (30) days thereafter. Hearing shall include any oral arguments and the filing of any written briefs. The Board of Directors by a two-thirds affirmative vote of all of the eligible members of the Board present and voting may exonerate or may censure, suspend or expel the accused member as the facts in its opinion may justify. The failure of at least two-thirds of all the members of the Board of Directors present and voting to agree upon the disposition of the charges shall act automatically as a dismissal of the same. No member of the Board of Directors not present at the said hearings for the entire time thereof shall be entitled to vote with respect to the disposition of the charges.

(9) *Suspension—Maximum Period—Status of Suspended Member.*—If the Board of Directors shall determine to suspend an accused member, the term of such suspension shall be within the discretion of the Board, provided that in no case shall a member be suspended for a period greater than one year. A suspended member shall have no rights or privileges in the society, provided that at the expiration of the period of suspension such suspended member shall not be reinstated to membership in good standing until he applies for reinstatement and pays all dues accrued during said period of suspension.

(10) (a) *Board's Decision—Secretary to Send Copies.*—Within ten (10) days after the decision of the Board of Directors, the secretary of the society shall transmit a copy of the decision of the Board to the accused member or members and to the secretary of this Association.

(b) *Board's Decision Final—Subject to Appeal.*—The action of the Board of Directors of a component society shall be final, subject only to appeal to the Council of the California Medical Association in such cases as are provided in these by-laws.

(c) *Technical Rules of Evidence Not to Govern Disciplinary Hearings.*—All hearings with respect to the disposition of charges against a member of a component county society shall be held and conducted in such manner as to ascertain all the facts fairly to the accuser and accused, eliminating all formal or technical rules and requirements which ordinarily pertain to judicial proceedings.

(d) *Members Agree That No Cause of Action Shall Accrue.*—Any person so charged, censured, suspended, or expelled shall have no claim or cause of action against this Association, a component county society or any member, director, councilor or officer, thereof by reason of such charges, or the hearing or the consideration thereof or censure, suspension or expulsion therefor.

(e) *Expelled Members — Right to Apply for Membership—When Accrues.*—Any person whose membership has been involuntarily terminated in a component county society by reason of violation of these by-laws may apply for membership after the expiration of one year from the date said membership was terminated, and such application shall be considered in the same manner as a new application for membership.

Section 4. Procedure for Appeal to Council

A member of a component county society censured, suspended or expelled by his county society may appeal from the action of such component county society to the Council of this Association within the period of two months succeeding the date of such censure, suspension, or expulsion. Appeals shall be in writing and be filed within the said period of two months in the office of the secretary of this Association. Upon the filing of an appeal the secretary shall present it to the first subsequent meeting of the Executive Committee or the Council. Appeals shall be heard by the Council only after reasonable notice in writing of the time and place of the hearing of the appeal has been given to the appellant member and the president and secretary of the component county society.

Section 5. Rules Governing Appeals

In hearing appeals, the Council shall review all questions of procedure and may, in its discretion, review the evidence contained in the record of the original proceedings held before the Board of Directors of the component county society. The Council may make findings of fact contrary to, or in addition to, those made by said Board of Directors. Such findings may be based on the evidence adduced before said Board of Directors, either with or without the taking of evidence by the Council. The Council may, for the purpose of making such findings or for any other purpose in the interest of justice, take additional evidence of or concerning facts material to the questions involved, or may, for such purpose, appoint a committee of its members or any notary public to act as referees or referee for the taking of such additional evidence.

Such referee shall render a report in writing to the Council, which report shall contain a clear statement of the facts found by the referee from the testimony or evidence adduced.

The Council shall use any lawful means which in its judgment will best and most fairly present all the facts involved.

The Council may affirm, reverse or modify the decision of the Board of Directors or make such other disposition of the proceedings as it may deem proper.

In every case of an appeal the individual councilors and the Council, through a committee thereof, prior to any hearing being held upon the appeal, shall exert all proper efforts at conciliation and compromise.

Neither the appellant member nor the component county society shall be represented by an attorney at law. This Association may be represented by its attorney to advise the Council upon procedural questions only.

The decision of the Council shall be final and bind the appellant member and the component county society.

Respectfully submitted,
W. W. Roblee, *Chairman.*

COMMITTEE OF FIVE*

Executive Group

William R. Molony, Chairman
Harry H. Wilson — Robert A. Peers
Alson R. Kilgore — Rodney A. Yoell

To the President and House of Delegates:

The House of Delegates of the California Medical Association in session at Yosemite in June, 1935, voted to continue the Committee of Five, with instructions to complete the work and submit a final report at the meeting in Coronado in May, 1936. On July 24, 1935, a meeting of the Committee of Five was held in Los Angeles. This meeting was attended by Dr. Paul A. Dodd, director of the survey, and Dr. F. C. Warnshuis, secretary of the Association. As a result of this meeting an agreement was entered into and signed by Dr. Paul A. Dodd and the officers of the committee, a copy of which is attached herewith. This agreement, in effect, sets out that the Association has discharged its financial obligation to the survey. That an audit by a certified public accountant has been made, that Doctor Dodd be advised that the survey be terminated and that no further expense be incurred.

That when the activities and work of the Committee of Five and its director are concluded it is understood that those records and charts that were secured through funds obtained from the State Emergency Relief Administration are to be transferred to the proper officials or representatives of the State Emergency Relief Administration in accord with previous agreements.

Secondly, that all the information, facts, details obtained through questionnaires and other investigations that related to doctors, dentists, hospitals, and relief agencies, shall be the property of the California Medical Association and at their disposal, and in accordance with the instructions and action of the Council of the California Medical Association.

It was further agreed that Paul A. Dodd will complete and submit five copies of all the findings of the survey, his conclusions, the recommendations of the Advisory Council of Economists, as a final report to be submitted to the chairman of the Committee of Five on a day not later than September 15, 1935.

That the director, Paul A. Dodd, will on that date, or before that date, make available all of the records of the survey to the Committee of Five for such disposition as the State Department of Health and the State Emergency Relief Administration and the Council of the California Medical Association may determine and direct.

That such material will be subject to the final disposition of these above-named parties and will be stored as they may direct.

That the director, Paul A. Dodd, hereby agrees and guarantees that he will not incur, contract or obligate the Committee of Five on behalf of the California Medical Association or the State Department of Health or the State Emergency Relief Administration for any further obligations or expenses after July 26, 1935, and that in the event that he should contract or incur any additional expenses, he hereby specifically agrees to assume personal responsibility for such expenses and to defray them from his own personal funds.

That, in accordance with the foregoing, the director, Paul A. Dodd, acknowledges and understands that his services as director of the survey, or as agent of the Committee of Five, or as agent of the State Department of Health, or as agent of the State Emergency Relief Administration, will terminate and be ended as of noon of September 15, 1935.

Thereafter the quarters occupied by the survey staff were given up and all material taken charge of by Doctor Dodd, to be used by him in the writing and compiling of his report to the Committee of Five.

On September 16, 1935, a copy of the report of the survey was sent to each member of the committee. A copy was also sent to each member of the Advisory Council. This report was far from complete and in no sense was satisfactory to the committee or the Advisory Council.

A meeting of the Committee of Five was held in San Francisco on November 24, 1935, for the purpose of considering the report of the director. After a thorough discussion it was decided that Doctor Dodd be asked to submit a revised report and to furnish the committee with the report of the members of the Advisory Council. It was voted that a review and report be made by a competent person having a broad medical background.

Following this meeting Doctor Dodd sent to the office of the Association in San Francisco the schedules and all other material relating to the information obtained from physicians, osteopaths, hospitals, and dentists. The schedules and other data obtained from approximately 25,0000 families were retained by him on the theory that they were obtained through Government funds and did not, therefore, belong to the California Medical Association. This material properly belongs to the State Department of Public Health, as the agent of the Government, and eventually will be called for through this agency. After many delays upon the part of the director in submitting the necessary final reports, the Council of the California Medical Association appointed an "accelerating committee," composed of T. Henshaw Kelly, E. M. Pallette, W. W. Roblee, to join with the Committee of Five for the purpose of pressing forward to an early conclusion the final report and recommendations of the committee.

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* The Special Committee of Five was appointed to supervise a survey of California morbidity and mortality, and their estimated costs. (See July, 1935, issue, pages 57 and 60.)

A meeting of the two committees was held in Los Angeles on February 23, 1936. A full discussion of the entire matter, from its inception to date, was had. The matter of supplementary and critical reports was gone into. Dr. John B. Canning of the Advisory Council had already made a critical review of the entire report and, it appearing that he had made an offer to Doctor Dodd to take over the revamping and revising of the original final report, it was decided that further time be given the committee and Doctors Dodd and Canning to work out a satisfactory solution of the problem.

The combined committee, therefore, submit this condensed report of progress and frankly believes that further time is needed to adequately and satisfactorily digest the material on hand, to the end that finally a report may be submitted to this House that will fairly reflect the situation in California.

Respectfully submitted,
William R. Molony, Sr., *Chairman.*

SPECIAL COMMITTEE ON A QUALIFYING CERTIFICATE (BASIC SCIENCE) LAW

George H. Kress, General Chairman
Morton R. Gibbons, Chairman (for Bay Region)
Edward M. Pallette, Chairman (for Southern California)
Junius B. Harris, Chairman (for Remainder of State)

To the President and the House of Delegates:

Much to the regret of the Council and its special committee, it has not been possible to proceed, as had been planned, with the initiative providing for a qualifying certificate (basic science) law, which it was proposed to place on the State election ballot of November of the present year. The amendments to the California registration laws passed by the last legislature made doubtful the securing of the minimum of 186,000 valid and duly certified names of voters, with precincts, in time to be properly attested to the Secretary of State at least 110 days before the November election. The present plan is to submit the law as an initiative statute on the 1938 State election ballot.

The reasons why a qualifying certificate law passed by the legislature would be of little or no value have been given in previous reports of your committee. The entire subject was also considered in some detail at the Conference of County Society Secretaries held in San Francisco on January 18, last, and presented on page 221 of the March issue of California and Western Medicine. Attention is also directed to the remarks of Dr. Junius B. Harris (printed on page 223), in which he points out some recent cultist legislation enacted in Arizona, from which source danger may be apprehended through the custom of reciprocity in case a similar law should be passed by the next California legislature. It will indeed be a surprise if such an effort is not made at Sacramento next spring. However, if cultist licensure legislation of a type so inimical to public health interests can be prevented at the next legislative session, then with careful planning the proposed initiative law for 1938 should not only be a probability, but become a fact. Your special committee, which has had the proposed measure under careful consideration for almost ten years, believes that the revised draft of the law submitted to the Council (the major provisions of which have already been outlined in reports and editorial comments in California and Western Medicine) is a measure adapted to the needs of California, and one that will receive the hearty approval of the electorate of our State. Your committee, therefore, asks continued interest and support until the measure finds its place on the statute books of California.

Respectfully submitted,
George H. Kress, *Chairman.*

COMMITTEE ON SAN DIEGO EXPOSITION EXHIBITS

Executive Group

Clarence G. Toland, Chairman

W. W. Roblee	John C. Ruddock
Fred B. Clarke	Robert A. Peers
Edward M. Pallette	Frederick C. Warnshuis

To the President and House of Delegates:

Your committee on the scientific exhibit at the California Pacific International Exposition at San Diego is respectfully submitting to you, by your instructions, an analysis of what has been accomplished at the Fair.

Your committee is very grateful to Dr. William H. Geistweit, Jr., as Medical Director of Exhibits. He has worked unselfishly during the last three months, even to the detriment of his personal business. Men who have this enthusiasm are few. He has felt that this opportunity has been given to the regular medical profession in order that the public may better understand the problems which we encounter while administering to the sick. Also, that it is a triumph for regular medicine to exhibit the advances in medical sciences in a dignified way.

Your committee is just as enthusiastic in its thanks to the other members of the committee of the San Diego County Medical Society, and especially to Dr. Lyle C. Kinney. He also has given his time freely and with only one thought, that our "show" must be a success.

Attached hereto is the report from the committee of the San Diego County Society, that you may read it in full and so understand the difficulties encountered.

All the exhibitors were contacted by letter, telegrams, telephone, and many personally. The San Diego County Society committee has put us over the top, even though at times it seemed impossible because of lack of time. The work was done within three months, while other expositions or fairs have had one to two years to do the same thing.

We wish to thank all the exhibitors at this Fair for their contributions. We realize fully how difficult it has been, and hope that the next time they are called upon for similar assistance ample time will be given to them to avoid the many pitfalls that develop in assembling their exhibits.

Dr. John C. Ruddock has suggested that, because of the experience gained during the preparation of this scientific exhibit, the following plan be adopted for future reference:

1. That a planning commission be appointed by the Council of the California Medical Association.

(*a*) To adopt a theme or plan of exhibits.

(*b*) To determine the kind of exhibits, both commercial and otherwise, to fit the plan.

(*c*) To draw up blueprints and plans to be submitted to exhibitors, who will conform with requested policies of exhibiting.

2. That a committee on exhibits be appointed to effect the plans of the planning commission.

In order that such a scheme be put into effect, it is necessary that sufficient time be allowed in order to contact the various probable exhibitors.

Respectfully submitted,
Clarence G. Toland, *Chairman.*

* * *

The following report was received from the committee of the San Diego County Medical Society. This report was written by Dr. Lyle C. Kinney.

To the President:

The California Pacific International Exposition at San Diego now presents as a major educational feature the Hall of Medical Science, sponsored by the California Medical Association and the San Diego County Medical Society.

The Exposition Company has provided the most beautiful and best-located building in the Park, and they have given the sponsoring committees unlimited and wholehearted coöperation throughout the assemblying and installation of the exhibits. The entire building is under the control of the committee of the California Medical Association, and all exhibits have been selected and approved by that committee.

In spite of the seemingly impossible task of assembling a medical exhibit in two months, the generous support of national and state societies, and of many California institutions, has produced a Hall of Medical Sciences that is interesting, instructive, and a credit to the medical profession.

The building was opened March 7, with about 60 per cent of the material in place, but so arranged as to give the impression that it was nearly complete. The formal opening on March 28 should show a well-balanced display of the message of modern medicine.

The exhibits in place on the opening day were furnished by the following organizations:

The American Medical Association.
California Medical Association — Institute of Public Health and Ivy Exhibit.
American Society for Control of Cancer.
California Tuberculosis Association.
Department of Public Health of California.
Board of Medical Examiners of California.
Pacific Coast Society of Obstetrics and Gynecology.
Los Angeles Maternity Service.
Los Angeles County Health Department.
E. H. Angler Society of Orthodontists.
Chicago Roentgen Society and Pacific Roentgen Club.
University of California Hospital.
General Electric X-ray Corporation.
California Dairy Council.
Automobile Club of Southern California.

An exhibit of human pathology, assembled by Dr. Alvin G. Foord, with the following organizations contributing:

School of Medical Evangelists.
Los Angeles County Hospital.
Pasadena Hospital.
Stanford University Medical School.
University of Southern California Medical School.

An exhibit on the care of the crippled child, furnished by the Los Angeles Orthopedic Foundation, Los Angeles Children's Hospital, Crippled Children's Society of San Diego, and the American Physiotherapy Association.

The following organizations have made valuable contributions, and have loaned special features that have been included in the above exhibits:

Los Angeles County Hospital.
San Diego County General Hospital.
San Diego Museum of Natural History.
San Diego Zoölogical Society.
Department of Obstetrics and Gynecology, University of Southern California.
Reif Research Laboratories.
Cutter Laboratories.
Westinghouse X-ray Corporation.
Eastman Kodak Company.
Parke, Davis & Company.

Exhibits are being prepared which have not yet been installed, as follows:

University of Southern California, College of Dental Surgery.
San Diego County Health Department.
Stanford University Department of Medicine.
United States Naval Hospital.
Plastic Surgery, loaned by Dr. H. L. Updegraff.
Reconstruction Surgery, loaned by Dr. Arthur Smith.
United States Navy.
Max Woecher and Son Company.

The San Diego County Medical Society has furnished a modern office reception room, where visiting physicians and their families may register, receive mail and telephone calls, and which may be their headquarters while in San Diego.

The Hall of Medical Science contains the finest auditorium in the Exposition, which will be devoted to scientific lectures and motion pictures. The committee will welcome information as to speakers, who will be available for this program at any time throughout the Exposition.

At the onset of this project, the committee selected the retiring president of the San Diego County Medical Society, Dr. William H. Geistweit, Jr., as director of medical exhibits. The enormous amount of work and details in the preparation of the exhibit has fallen upon him and his office, and the success of the undertaking is due to his untiring efforts and his ability and courage in conquering insurmountable obstacles. The committee is deeply indebted to Mr. Phillip Gildred, managing director of the Exposition, and to Mr. Phillip Van Dusen, in charge of construction and installation, for their constant help and coöperation, without which the exhibit would have been impossible.

The San Diego committee desires to congratulate the committee of the California Medical Association on the many valuable exhibits they have obtained, and to express sincere gratitude and appreciation for their unfailing support and encouragement.

Committee of the San Diego County Medical Society: B. F. Eager, president; W. C. Crabtree, secretary; J. F. Churchill, W. W. Crawford, T. O. Burger, M. C. Harding, Alex Lesem, and L. C. Kinney.

COMMITTEE ON SCIENTIFIC EXHIBITS

Executive Group

John C. Ruddock, Chairman
W. A. Morrison Gertrude Moors
Rawson J. Pickard Harold A. Fletcher

To the President and House of Delegates:

The listing in the scientific program, as published, of the exhibits to be displayed at the annual meeting of the California Medical Association at Coronado, summarizes the work of this committee. Your committee wishes to call attention to the fact that more members of the Association are applying for space to exhibit scientific material than in former years.

The committee has passed upon the applications submitted to them as regards the desirability of the various exhibits at our annual meeting.

Your committee feels that wide publicity should be given the members of our Association through the JOURNAL, in order that more exhibits be given at our annual meetings, thus relieving the sections from large numbers of papers, and making it easier to find satisfactory auditoriums to accommodate our meeting.

It is recommended that the Council urge the members of the Association to apply for exhibits of subjects and material in lieu of papers, and also that the Council of the California Medical Association urge the various section officers to conform with this principle.

Your committee tenders its appreciation to those members who are contributing to the success and value of this program by exhibiting scientific material at this meeting.

Respectfully submitted,
John C. Ruddock, *Chairman.*

COMMITTEE ON SCIENTIFIC SECTIONS

Executive Group

Morton R. Gibbons, Chairman
Lowell S. Goin Lemuel P. Adams
John C. Ruddock F. F. Gundrum

To the President and the House of Delegates:

This committee was directed to devise a plan, or plans, for submission to the Council and the House of Delegates by which the multiplicity of scientific sections and meetings at the annual convention would be limited, and at the same time more members be enabled to hear more papers, and the general practitioner have the opportunity to follow a more diversified program than at present.

Plans are under consideration. Report will be presented at Coronado.

Respectfully submitted,
Morton R. Gibbons, *Chairman.*

COMMITTEE OF SIX ON HEALTH INSURANCE

Executive Group

T. Henshaw Kelly, Chairman
Walter B. Coffey J. B. Harris
Joseph Catton Fred DeLappe
E. T. Remmen

To the President and House of Delegates:

This committee, created by the special session of the House of Delegates at Los Angeles on March 3, 1935, reported to the 1935 annual session of the House at Yosemite, 1935 session.

Following this annual session, and pursuant to the instructions of the House of Delegates contained in Resolution No. 9, the committee returned to its duties and, finding that the 1935 legislature was in no mood to pass a health insurance act satisfactory to the physicians of California, or perhaps any act at all, it agreed, after consultation with the sponsors of the proposed act, to the legislative death of the bill in both houses of the legislature.

Each house appointed an interim committee to continue the study of the costs of sickness in California, with instruction to report to the 1937 legislature.

The committee, its advisory committee, the general counsel of the Association, Hartley F. Peart, his associate, Howard H. Hassard, and John B. Canning, professor of economics at Stanford University, the advisor to the committee, spent many days and nights in the preparation of the bill and in consultation with the Senate Interim Committee on the original bill and proposed amendments thereto. The members of the Committee of Six, Professor Canning, and Messrs. Peart and Hassard, spent practically their entire time on the work of the committee from March 16 to April 12, at which time the bill was included in the report of the Senate Interim Committee.

It became necessary, at the urgent request of the Senate Interim Committee, for members of the Committee and Professor Canning to spend much time at Sacramento, and in order that the instructions of the House of Delegates be properly carried out and that the California Medical Association not appear before the legislature as a house divided against itself, the committee felt it imperative that the members of the California Medical Association should be kept informed of the character of the bill and the changes occurring therein as it was handled in the legislature.

To that end, letters and a copy of the bill as introduced were printed and sent to each member of the California Medical Association.

Professor Canning's services were indispensable to the committee, and his knowledge of the tax laws and his early acquisition of the importance of the physician's special knowledge and point of view were crucial in obtaining any medical representation in the proposed plans. From March 16, the first meeting of the Committee, to May 18, 1935, the day of the appointment of the Interim Committees, Professor Canning spent over sixty full days and many nights at the service of the committee.

With the adjournment of the 1935 legislature the duties of the committee ceased, and it presents this report as a supplement to its report to the 1935 House of Delegates at Yosemite. A summary of the expenditures of the committee is appended hereto.

In closing this report, the committee, as a result of the experience gained in the 1935 legislature, would like to state that in its opinion the time for compulsory health insurance of a satisfactory type has not yet arrived in California.

When, and if, the time comes that health insurance is imminent, the Association should be a collaborator, to the end that the system enacted into law will provide the maximum of benefit to those included in its provisions and the greatest promise of the development of fine medical service by the profession in California.

* * *

COMMITTEE OF SIX

Statement of expenses as of December 31, 1935

May, 1935:	
James H. Barry Company, circular letters	$ 569.62
Traveling expenses—Committee members	159.59
Stanford University Press—S. B. 454	507.37
Legal Services	2,998.72
Professor J. B. Canning	1,550.00
Telephone	5.01
Expenses of Committee members at Sacramento, March 16, May 16, 1935	495.88
	$6,286.19

Respectfully submitted,

T. Henshaw Kelly, *Chairman.*

COMMITTEE ON TAX SUPPORTED HOSPITALS AND MEDICAL CARE

Executive Group

Axcel E. Anderson, Chairman
Louis A. Packard Earl E. Moody

To the President and the House of Delegates:

Pursuant to a resolution adopted by the House of Delegates at the Yosemite meeting in 1935, a committee was appointed to investigate tax-supported medical service and hospitalization, and to make recommendations concerning them. County hospital problems, as affecting the membership of the California Medical Association were considered the main object of this investigation, so the committee has concerned itself entirely with such hospitals.

Prior to the end of the World War, our county hospital problems were unimportant. Since that time they have had a mushroom growth, keeping pace with the insidious and rapid increase of county hospital service.

From 50 to 90 per cent of the medical and hospital care is now being rendered in many counties at taxpayers' expense. The resultant loss of practice has impoverished many of our members and deprived others of their rights and opportunities to earn a decent American living.

A planned effort to make county hospital service as attractive as possible is apparent. To remove the stigma of hospitalization at a charity hospital, the name of the institution would be changed, so instead of "County Hospital" we now have the "General Hospital." * . . .

A very important factor in the increase of county hospital problems is the more general recognition of the value of the political patronage connected with the control of such institutions. The milk of human kindness has suddenly replaced the blue blood of the politicians, and the supervisors in charge of the county hospitals have become the great benefactors of the sick by making it easy to get the hospital service. This is being done in some instances quite regardless of the laws governing admissions, and any patient may enter some hospitals even if he is quite able to pay for private hospital care.

The recent economic depression and the paternal attitude of the Government, which have fostered dependency on governmental agencies for the care of personal needs, have vastly increased the demands for free service and county hospital activities.

In some localities the abuse of county hospital service is traceable to a few members of our profession. Selfish motives have caused these few to jeopardize or sacrifice the interests and welfare of the other physicians of the community. Your committee has several times received the report that the county hospital doctors are using the county institutions to hospitalize their private patients at public expense while excluding the other physicians of the place from this privilege. This problem needs attention. . . .

Another problem is the activity, political and otherwise, and the declared purpose of some large organizations, such as the Farm Bureau, to open the county hospitals to everyone, and secure medical-service conditions similar to those in Kern County.

When your committee met and surveyed its task with its many complicated problems, it became quite evident that, considering the time and means allotted, the investigation would necessarily be incomplete.

It was decided that much of the required information could be secured from correspondence and questionnaires. After such information was secured, personal visits were made and conferences held with representatives of ten counties. We felt that the information gained from the questionnaires was very valuable, and, in most cases, complete. Thirty-one counties assisted the committee. Many of these questionnaires were answered so completely that no further study was necessary in those counties from which they came.

Tabulations of the information gathered are presented for the thirty-one counties listed. Fortunately, county hospital difficulties are not present everywhere throughout the State. A map of California in which the counties are blocked off to show trouble with the county hospitals in one way or another, reveals the interesting fact that the entire San Joaquin Valley, with the exception of Fresno County, may be considered in difficulties. San Francisco

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* The periods indicate that this portion of the report will be made verbally to the House of Delegates, at Coronado.

County is practically surrounded by trouble areas, with some extension to the Coast and the Sacramento Valley. The territory covered by these counties is large, but the population relatively small. The counties considered to be in trouble have a combined population of approximately one million as against five million in other parts of the State considered free from serious difficulties. No definite statement, of course, can be made as to how long this ratio will continue. A study of the tabulation presented with this report shows:

1. . . . *There is no uniformity of methods of operating the thirty-one hospitals listed.*

Probably some time in the dim past a lay board set up rules for the management of county hospitals and the supervisors responsible adapted these rules as they understood or desired them. In a few instances there exists an advisory board to which the supervisors may look for directions for operating the county hospital. The tabulation reveals the fact that these hospitals are the best-managed county hospitals in the State. Their admission rates are low, and political influence is largely eliminated. However, it should be mentioned that the advisory board, unless operating under a charter which specifies the functions of such a board, cannot dictate to the supervisors, and the supervisors are not legally empowered to delegate authority to such board.

2. . . . *In a majority of counties, no harmony or coöperation exists between the medical profession and supervisors.* Medical men are not asked for advice, and the supervisors do not accept it when offered.

In several counties there has been an open break between the supervisors and the profession. In only eleven counties, including four with advisory boards, have the supervisors asked for advice on medical and hospital matters. Generally in the counties in which least harmony is found, the county hospital situation is at its worst.

3. . . . *There is too much hospitalization with consequent waste of taxpayers' money.* The normal yearly admission to all hospitals in the United States is 66.6 per thousand population. Three county hospitals in California admit more than this figure to their own institution. In one county, if private hospitals are added, it gives the county almost double the national rate. Unnecessary and prolonged hospitalization occur, especially in hospitals having a part-time paid staff. The staff may be too busy with private practice to give prompt attention to the county hospital patient. Many counties are operating in an efficient manner, but it is difficult to reconcile an admission rate of less than 10 per thousand in one county, and 80 per thousand in another.

4. . . . *There is no standardization or uniformity in methods of what is considered a basis for admission.* In only a few counties are trained medical social service workers employed. In only four counties is a specific system used. Blanks to be filled out by applicants vary from a complicated form to none at all. In some instances only a card from the supervisor is necessary. In the outpatient clinics the same variations are shown, but, in addition, some of these clinics accept all applicants, and no questions asked. Abuse of emergency admissions is frequently reported. Maternity cases are often found admitted as emergencies, with the emergency admission planned months previously by the patient.

The sincerity of efforts to confine admissions to indigents is fairly evenly divided pro and contra.

5. . . . *The administrative director of nearly half of our county hospitals is a part-time physician,* who devotes as much, or more, time to his private practice as to the hospital. From information gained by personal conferences, your committee believes that private patients are hospitalized by some of these men at public expense, and fees are collected for services. These fees may be charged for as office examinations or home care after leaving the hospital, as a substitute for a surgical fee. This practice permits the county hospital doctor to offer free hospital service, and creates an unbearable situation for the doctor who is excluded from practicing at the county hospital.

Some of these medical directors are paid a salary sufficient to secure excellent full-time service, and their competition in private practice seems unfair, unjust, and unnecessary.

6. . . . *Only twelve county hospitals are recognized for interne training.* The lack of standardization of management, service, records, etc., and possibly some of the undesirable conditions already mentioned, keep these hospitals from recognition for interneships. Some of these hospitals must hire residents at high salaries to carry on their work with, of course, added cost to the taxpayer.

7. . . . *Part-pay plans have been instituted in a few counties.* This service, proposed by county medical societies to provide care for patients not admissible to the county hospital, but deserving care at less than usual fees, deserves more general adoption. In many counties such plans have been proposed, but have been ignored or rejected by the supervisors.

This part-pay method should not be confused with the attempt of some county hospitals to collect from certain patients believed able to pay something for their care. We use the word "attempt" advisedly, because the collections are very inconsiderable when checked against the cost of operation. Collections are seldom enforced by the county legal department.

8. . . . *Private hospitals in the counties tabulated, with* few exceptions, could amply care for all but strictly indigent patients.

9. . . . *Out-patient clinics conducted in connection with county hospitals* are an unfair competitor of the physician's office. Many have no social service investigation and, frequently, where such service is carried out it is quite inadequate. The maintenance of these clinics means a great increase in the cost of the county hospital service. One county with one hundred out-patients per day reports an operating cost of $16,000 a year.

COMMENT

The reduced economic conditions of the people of California greatly increased the proper use of the county hospital service during the recent years of depression. We believe that many boards of supervisors made honest attempts to meet the decreased ability of self-respecting people to provide needed care. A larger part of the increase was the care of families on relief, or families whose circumstances would undoubtedly classify them as indigents according to the recent Appellate Court decision. The needy throughout the State as a whole were cared for by the counties in a commendable manner.

Continuing this care after these people have improved their circumstances is unfair to the taxpayers, the medical profession, and the patients themselves. Good citizenship is not built upon doles and gratuities, and the chiseler attitude is easily developed. Neither can we condone the attitude of a board of supervisors ordering the admission of patients known to have substantial resources, or patients who are county employees with good salaries or, in some instances, the supervisors themselves and members of their families.

The baneful effect of political influence in county hospital affairs is best illustrated by the situation arising in one county in which the supervisors insisted that the medical profession care for this class of patients without remuneration. When the staff of unpaid doctors of the hospital refused to comply, it provided the opportunity for a few physicians to take over the hospital service and begin the practice of using the county hospital for their own gain, and with the protection of the supervisors to maintain their position over the protest of the profession.

The care of the poor has long been the burden of the physician. The physician has not been expected to ask for remuneration. As early as 1766, the oldest medical society in America (New Jersey) put into its constitution, "As we separated ourselves to an office of benevolence and charity, we will always most readily and cheerfully, when applied to, assist gratis, by all means in our power, the distressed poor and indigent in our respective neighborhoods, who may have no legal maintenance and support from their county; but where such legal provision takes place, there we shall expect a reasonable reward from the particular town or county in which such poor may belong." It is our opinion that this sound statement of the case might well be applied to the present situation, provided all members of the medical profession would act uniformly. In this connection, we are reminded that we are working under a code of ethics. An opinion was expressed recently by one member of a county society, when questioned in regard to his county hospital activities, that the county society was for the purpose of hearing scientific papers and it was none of their business how he conducted his private practice. May we again refer to the state of New Jersey, where its president, Dr. William Elmer, stated in 1860: "We are ethical because we are on duty and need the drill and decorum of a well-equipped corps, and need that stragglers and deserters be kept outside the lines in order that we may do the most good and effective service for the public weal."

It is very apparent from information gained in this investigation that our Legislative Committee is again to be taxed to its utmost in the next session of the legislature. It is too early to predict just what the nature of the next attack will be. It will depend somewhat on the final determination of the force and effect of the recent ruling of the Appellate Court. At the present time it appears most probable that the *open county hospital proponents will attempt an initiative,* aided by the Farm Bureau, Grange, and certain Union Labor elements. How much effect the argument to the taxpayer on costs will have is problematic.

A phase of the county hospital situation which is worthy of serious thought is the great amount of obstetrical work being done in these hospitals. It is apparent that in many counties from 50 to 66 2/3 per cent of all babies are being born in county hospitals. Visualization of the future gives us, therefore, a people the majority of whom are county-hospital born. It means an electorate within a reasonable term of years controlled by those born in the county hospital. It is not hard to see what the future may bring if this condition continues to prevail.

SUMMARY

The outstanding facts of the county hospital situation, as secured by your committee from personal observation, correspondence, questionnaires, and other information gained from members of this Association in different parts of the State, have been given months of serious consideration by your committee, and may be briefly stated as follows:

1. In thirty-one counties studied, there are thirty-one different methods of running a county hospital.
2. Even those counties with advisory boards show considerable variations although the results are all good.
3. It is very evident that in many counties there is too much hospitalization.
4. Waste of the taxpayers' money is wanton in some instances, and very evident in others.
5. A big portion of the State is rapidly becoming county-hospital minded.
6. The question of who is eligible for county hospitalization has an alarming variation throughout the State.
7. Very few counties make a definite study, from a medical standpoint, as to a patient's eligibility.
8. The admission of so-called liability and compensation cases is increasing.
9. Politics is rampant in many counties, and supervisors will take advice only from medical men who will agree with them.
10. A few medical men have sold out their profession for their own gain.
11. There is no doubt that the political use of the county hospitals is the most pernicious of all factors encountered.
12. There has been either a lack of desire or will on the part of some county society members to back up the society in efforts to resist abuses, or a lack of energy in this direction on the part of the component society as a whole, in several counties.
13. The rapid increase of support of the supervisors by lay organizations has been secured in a large part by half-truths, misstatements, and political ruses.
14. The amount of taxes paid by the private hospitals to the county exceeds the sum total of money collected by county hospitals for so-called pay-patients in nearly all counties.
15. Adequacy of service is a secondary consideration with a majority of prospective patients seeking county hospital service.

Whether the taxpayer will or can stem the tide is a question. Taxes to support county hospitals have increased as high as 1200 per cent in the space of a very few years.

It is the opinion of this committee that if the full control of county hospitals were removed from the supervisors, county hospital agitation would cease in a very short time.

Mention has been made of personal conferences held with representatives of ten counties. With three exceptions, these counties were seriously affected by their county hospital troubles.

Tabulations of questions answered by thirty California Medical Association members from these counties follow:

Ten Counties	No	Yes
1. Does any of the fault for the present situation lie with members of the county medical society?	3	7
2. Does fault lie with supervisors and politics?	2	8
3. Reasons why supervisors and medical profession do not agree	4 none	6 political
4. Are elements outside of supervisors responsible for supervisors' position (eight farm bureau and allied situation)?	2 none	8
Worst feature of entire situation?	Political control	

RECOMMENDATIONS

1. Since our county hospital problems are obviously the result of factors from within the medical profession itself, together with outside influences, it is recommended by your committee that each county immediately take steps to eliminate these factors of trouble within its own ranks. Failure to face this matter in a fearless manner may lead to disastrous results for our entire membership.

2. Since our present laws vest the supreme control over county hospitals in boards of supervisors composed of lay individuals, ignorant usually of hospital needs and management and who often use this control to gain political power, and considering further that making a political football out of the county hospitals has in several counties resulted in inadequate care of the sick entitled to proper care at the county hospital, it is unanimously agreed that to remedy this situation it is necessary to eliminate politics and the present method of control by supervisors.

The election of supervisors friendly to the medical profession and willing to accept advice is hopeless in many counties and, if possible, would be a recurring battle every two years. Your committee, therefore, unreservedly recommends that an attempt be made to secure *centralized control* of all hospitals in the State. We recommend that a *state control* board be given the authority to regulate hospitals, and that each county operate under an *advisory board* appointed by and subject to the State board. This can be accomplished by amending the present public health law, vesting hospital control in the existing State Board of Health, thereby avoiding the creation of a new department or board.

It is further recommended that (*a*) the details of such a plan be worked out by the Council of the California Medical Association and its Legislative Committee; (*b*) it be left to the discretion of the House of Delegates whether the attempt be made through the legislature or by an initiative act; (*c*) that this matter should be given preference and first consideration by the Council and House of Delegates over other legislative and initiative problems.

3. It is recommended that each component society of the California Medical Association be thoroughly educated as to the county hospital situation *throughout the State,* and that they further be informed on the matter of the present legal status and that the assistance and support of the California Medical Association, from a legal standpoint, be assured such component societies if necessary.

4. It is further recommended that each component society attempt, through direct or indirect conferences, to secure the coöperation of the boards of supervisors of their respective counties, and that, where it is possible, friendly adherence to the Appellate Court decision be secured.

5. It is recommended that detailed study of this problem be continued, either (*a*) through a continuation of a committee provided with sufficient funds; (*b*) by a committee assisted by a part-time director; or (*c*) a committee acting with a full-time director.

Since it seems to be very essential that a definite county hospital policy be developed, and in order that all component societies be united, a tremendous amount of work will be necessary. Only thirty-one counties participated in this investigation. Many not reporting are known to be in difficulties. This is further evidenced by the fact that many unreported counties are listed as *amici curiae* of the Kern County Supervisors in the appeal to the Supreme Court. It is most essential to the welfare of the

California Medical Association that there be no division of opinion on the county hospital problem in the medical profession of California. A well-defined program with unanimous support is absolutely essential to prevent a more chaotic situation than now exists.

6. Voluntary hospital insurance as provided by Senate Bill 246, will not, in the opinion of your committee, satisfy the demands for free service, but it is our belief that it will have some favorable effect. We, therefore, recommend the promotion of hospital insurance service as freely and soon as possible.

7. It is recommended by the committee that the House of Delegates shall express its desires in reference to recommendations 2 and 5. In the consideration of both, the committee wishes to especially bring to the attention of the House of Delegates the vital necessity of adding a great deal of information to that already gathered, and whether or not an initiative is attempted such information as may be gathered will be a determining factor in the ultimate outcome if properly prepared and used. In considering the initiative the committee believes a plan can be worked out to secure the required signatures for a fraction of the estimated cost ($35,000) of the basic science petition. In the consideration of both of these recommendations it is a matter of fact that the recent Supreme Court decision was a decided spur to our opponents, who have been securing signatures to the following petition for several weeks. It proposes a constitutional amendment as follows:

"The governing body of any city, county, or city and county, is hereby authorized and empowered to establish and maintain therein a hospital, or hospitals, to provide rules and regulations for the proper management and the appointment of the necessary officers and employees thereof, and said governing body shall make rules and regulations governing the admission to, and the care, as patients in said hospitals, of any citizen of the United States who is a resident of said city, county, or city and county, whether such persons be indigents or non-indigents, and may in said rules and regulations establish the rates or fees to be charged each non-indigent patient for services rendered and supplies furnished to such non-indigent patient in such hospitals."

The committee would like to quote Mr. Alfred Siemon, the attorney in the Kern County case, who has a valuable fund of information on the county hospital situation from the legal and political side. Mr. Siemon says:

"Since this question of public hospitalization is going to have to be fought out before the people, now, perhaps, is as good a time as any. During the next two or three years there is bound to be a strong reaction against further extension of governmental services, and it is going to be very difficult to add anything more to the public burden. The proposed initiative constitutional amendment, petitions for which are now being circulated, would authorize large-scale commercial hospitalization by counties. It would afford the pretext for the supervisors to build extensive new county hospitals, to fill them full of modern equipment, and to add hundreds of people to the public payroll. Supervisors would be wholly unable to resist the temptation which would thus be dangled before their eyes to embark upon enormous spending campaigns for the building and maintenance of new public hospitals. That will clearly appear the way the matter is now being presented by the Initiative; and people are very readily seeing that the governmental structure will not stand the strain. This may be another case where the greed of public officers will be the most convenient means of defeating their object." . . .

"Your state society and each county society should make a study of county hospitalization. The decision in *Goodall* vs. *Brite* shows very clearly that the costs of county hospitalization should be figured on the same basis as the costs in private hospitalization are figured." . . .

"It is also clear, from the decision, that the cost of operation should be computed on the basis of people actually hospitalized, as distinguished from the care of aged people; and that it is not a proper method to attempt to determine the cost of county hospitalization by including the inmates of old folks' homes for the purpose of bringing down the average. It is almost certain that it will be found that county hospitals cost more than private hospitals when figured on the same basis." . . .

"In one of my radio talks I made such a computation in regard to the Kern General Hospital and showed that the cost per patient, properly figured, would run around $7 per day. Data of this kind, gathered from all over the state, would prove to be excellent campaign material in the coming contest of the Initiative." . . .

"The decision in *Goodall* vs. *Brite* is now final, and the literature will be filed soon. Whether the supervisors will attempt to ignore the decision is uncertain; but I think they will give us trouble. There is enough uncertainty arising out of the decision of the Appellate Court to make it difficult to secure anything like a clear dividing line between those who should and those who should not be admitted. It is probable that we shall have to resort to contempt proceedings against the Board." . . .

In regard to the proposed constitutional amendment, Mr. Siemon says:

"This means commercial hospitalization by the counties and the total extinction of all private hospitals and of all private treatment of the sick. Make no mistake about that. You boys will have to fight as you never fought before if the private practice of medicine is to continue in this State; but with proper organization and effort you can doubtless settle the thing favorably for many years to come."

Every member of the California Medical Association should read and study this petition, especially that portion which says:

"And may in said rules and regulations establish the rates or fees to be charged each non-indigent patient for services rendered." Note particularly this does not specify hospital services.

In this proposed constitutional amendment we have the most vicious form of State medicine ever proposed, which, if passed, means the practical extermination of every private hospital and every private practitioner of medicine in every county in which it is put in effect.

In submitting this report to the House of Delegates the committee wishes to thank the officers and members of the component societies who have so kindly and thoroughly aided in the work.

Respectfully submitted,
A. E. Anderson, *Chairman.*

VI

ADDENDA

Resolutions

Introduced by M. R. Gibbons, Sr., Councilor.

Subject: *Board to Review Medical Testimony.*

Whereas, Court and Compensation Board hearings reveal an increasing amount of testimony given by licensed physicians and surgeons that is not based upon scientific facts or in accord with accepted opinion and practice; and

Whereas, Such testimony, often warped intentionally in an effort to support an attorney's declaration, brings discredit to the entire medical profession, and contributes to the miscarriage of justice and at the same time encourages initiating suits that are without merit; therefore, be it

Resolved, That the House of Delegates authorizes the appointment of a state committee on review of medical testimony, composed of five members, and that such committee shall act in a consultant, advisory, and assistant capacity to similar county committees; and be it

Resolved, That the Council shall instruct each county society to appoint from its members a board to review medical testimony charged with the following:

1. To review all medical testimony given before courts and compensation boards in the county.

2. To call in any member whose testimony before a board or court is not in accord with scientific facts, accepted opinions and practice, for the purpose of discussion and preventing repetitions of such discredited opinions and testimony.

3. To, when facts and acts warrant, report such expert witnesses to the proper committee of the society with recommendation that disciplinary procedures be inaugurated against the member who has given questionable testimony and opinions.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section (Adv. pages 2, 4 and 6).

CALIFORNIA MEDICAL ASSOCIATION

ROBERT A. PEERS..........President
EDWARD M. PALLETTE..........President-Elect
FREDERICK C. WARNSHUIS..........
Secretary-Treasurer and Associate Editor for California

STATE AND COUNTY SOCIETY ACTIVITIES

"BROTHER, CAN'T YOU SPARE A DIME?"

In the body of this comment the "dime" will be raised to the "dollar" denomination. As you read on, may they become in your thoughts several hundreds of dollars.

In the February and March issues an editorial and comments, under "I Give and Bequeath," were published, earnestly suggesting and inviting members and lay friends to determine to arrange to give now or bequeath in their wills a definite sum of money toward an Association Endowment Fund. The principal gift to remain intact in perpetuity or for a given number of years, as the donor may elect; the interest income of the endowment to be used to promote some specific project or cause or to defray the expenses of the expanding activities of the Association. Such endowment gifts may be designated as memorials to individuals or relatives. It is felt that some members have paused to consider this solicitation and that others may need further incentive ere they respond. Hence further comment.

Our Association fails unwillingly to participate in this or that movement, to initiate new movements, or to promote or enlarge this or that activity, solely because funds are not available to defray the expense that is entailed. The Association is hampered, restrained and rendered inactive in representing public and professional interests in many avenues where, were we financially able, it would be possible to achieve great good for human health welfare. It is regrettable that these opportunities cannot be embraced and Association support contributed. Our present sources of income cannot be expanded, hence the appeal is being made to those who are able, to provide additional funds by endowment gifts now or in their wills.

Brother, can't you spare a "thousand or even more dollars" for such an endowment? Posterity will be beholden to you for all time if you can and will. Will you?

* * *

PRESIDENT'S DINNER

As indicated in the program, the dinner in honor of our president will be given at 7:15 p. m. on Tuesday evening, May 26, in the dining room of the Hotel Del Coronado. This function is a feature of the entertainment of an annual session. It has always been a most enjoyable social affair.

Advance reservations for rooms indicate a large attendance. Hotel facilities will be severely taxed. The management is bending effort to serve the greatest number its facilities permit, and yet we fear that it will be impossible to accommodate all. So first come will be first served.

A ticket limitation has been imposed. A ticket is required for every individual. *No admittance without a ticket. Obtain your ticket when you register.*

* * *

YOUR BUSINESS PATRONS

Costs of publication would constitute a large draft on Association funds were it not for advertising income. These advertisers are your individual business patrons. They, by their patronage, make it possible to issue your Journal with its present contents, form, and style. That fact is all too often overlooked by the member. There are those who rarely, if ever, give thought to those who pay for space on our advertising pages. This is not the spirit of reciprocity.

Our advertisers are all firms of highest integrity, and merit not only your patronage, but also your confidence. Their advertisements in each issue is a personal card of introduction to you, and when a representative calls on you he should be accorded preference over those who may represent non-advertisers. Other things being equal, confer your patronage to our advertisers, and by all means read and answer their advertisements.

* * *

PRINCIPLES OF ETHICS

Last month Chapters I and II were printed. Chapter III merits mature reflection.

Chapter III

The Duties of Physicians to Each Other and to the Profession at Large

Article I. Duties to the Profession

UPHOLD HONOR OF PROFESSION

Section 1. The obligation assumed on entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable despots; to accept their thraldom is to take away all liberty from one's action and thought." (Nicon, father of Galen.)

MEDICAL SOCIETIES

Sec. 2. In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession.

DEPORTMENT

Sec. 3. A physican should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with propriety in his profession and in all the actions of his life." (Hippocrates.)

ADVERTISING

Sec. 4. Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

PATENTS AND PERQUISITES

Sec. 5. It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

MEDICAL LAWS—SECRET REMEDIES

Sec. 6. It is unprofessional for a physician to assist unqualified persons to evade legal restrictions governing the practice of medicine; it is equally unethical to prescribe or dispense secret medicines or other secret remedial agents, or manufacture or promote their use in any way.

SAFEGUARDING THE PROFESSION

Sec. 7. Physicias should expose without fear or favor, before the proper medical or legal tribunals, corrupt or dishonest conduct of members of the profession. All questions affecting the professional reputation or standing of a member or members of the medical profession should be considered only before proper medical tribunals in executive sessions or by special or duly appointed committees on ethical relations. Every physician should aid in safeguarding the profession against the admission to its ranks of those who are unfit or unqualified because deficient either in moral character or education.

ARTICLE II. PROFESSIONAL SERVICES OF PHYSICIANS TO EACH OTHER

PHYSICIANS DEPENDENT ON EACH OTHER

Section 1. Experience teaches that it is unwise for a physician to treat members of his own family or himself. Consequently, a physician should always cheerfully and gratuitously respond with his professional services to the call of any physician practicing in his vicinity, or of the immediate family dependents of physicians.

COMPENSATION FOR EXPENSES

Sec. 2. When a physician from a distance is called on to advise another physician or one of his family dependents, and the physician to whom the service is rendered is in easy financial circumstances, a compensation that will at least meet the traveling expenses of the visiting physician should be proffered. When such a service requires an absence from the accustomed field of professional work of the visitor that might reasonably be expected to entail a pecuniary loss, such loss should, in part at least, be provided for in the compensation offered.

ONE PHYSICIAN TO TAKE CHARGE

Sec. 3. When a physician or a member of his dependent family is seriously ill, he or his family should select a physician from among his neighboring colleagues to take charge of the case. Other physicians may be associated in the care of the patient as consultants.

* * *

MEDICAL-LEGAL TESTIMONY

Expert opinion and testimony is becoming more and more discredited by juries, referees, and commissioners. This situation has become quite apparent in recent years. The Bar and courts have commented upon the problem. It involves all controversies presenting special acts and practices as factors in the dispute. We are only concerned in so far as intolerable conditions and events relate to medical-legal expert testimony.

Unity and agreement in opinions cannot be attained. Differences of opinions must and do exist—it cannot be otherwise. Honest differences are based upon honest convictions and rest upon palpable facts and factors that make them tenable—these command respect and permit one to draw his personal conclusions.

However, it is recognized that there is a serious, increasing evil rampant in a type or class of opinions that are attempted to be made plausible by bizarre, fabricated, nebulous and untruthful alleged facts. It is this latter type of expert opinion that demands exposure and censor of those who thus stultify themselves and contribute to the defeat of justice—most always for a fee.

Without mincing words, there are doctors who are willing to pose as experts and who base their opinions on premises that are not in accord with scientific fact or accepted opinion and practice for the sole reason of obtaining a fee and abetting an attorney who is seeking to win a case by hook or crook. These so-called experts merit not only exposure, but severest censor and discipline. Many of them are known and it is common knowledge that they can be bought for a price to warp and mold their testimony and opinion in the interest of the party paying their fee. They have been tolerated and at times ostracized, but continue as members in our organizational ranks. We are in part culpable for their conduct because we have not called them to task.

The time is at hand when me must free ourselves of culpability. Therefore, it is suggested that each county society appoint a board for review of medical testimony. This board is to be given authority to call in members and require explanation and justification for their testimony in any given case that is at variance with scientific fact or accepted opinion. The willful, malicious, conniving medical witness or expert should then be subjected to disciplinary measures. We are in duty bound to set our own house in order. Shall we not undertake to do so?

* * *

BIG AND LITTLE THINGS

Unless a person is in immediate contact with the office of the Association, he has no conception of the nature of the communications and reports that flow across the desk. It is a never-ending, varied stream of big and little things. Each item has some bearing upon organizational work. The little items are sometimes big, and the big items shrink to little ones—all are big to the individual writing on this or that. The four daily mail deliveries will bring in a daily average of one hundred pieces of first-class mail. Each promptly receives immediate attention. The outgoing mail may be from fifty to six thousand pieces. In March there were three days when over six thousand pieces of mail were addressed and mailed. There were days when for over a week more than three hundred pieces of mail were received. To give a bit of insight the following instances, that occur daily, are related:

Personal.—Daily, several letters relating to members' personal affairs are received. Subjects are: insurance, investments, books, journals, contract, legal problems, clinics, laws, sanitariums, automobiles, professional cards, colleges, hospitals, locations, associates, consultants. In fact, the range runs the gamut of personal interests. We are glad to receive them and seek to be helpful by prompt replies.

Public.—The lay inquiries cover every imaginable subject. These also receive prompt replies, and frequently writers are urged to confer with county society officers. Never is a single physician's name sent in response to recommend a physician or specialist. The advice is to consult the county society.

Mailing Addresses.—A mailing address list of members is never sent except to our own members or government officials.

Press Clippings.—Through a clipping service, items appearing in newspapers of the State, dealing with hospitals, health, medical care, legislation, meetings, and State agencies, are received and read. This is a valuable source of information.

Journals.—Sixty-five weekly and monthly medical journals are received and reviewed. Another valuable source of information.

Referring.—Everything bearing upon a subject that is being considered by a standing or special committee is referred to the committee chairman. Copies are often sent to state and county officers.

Examples.—One member wanted to know why he could not have his office in a restricted residence zone. A member wanted to know if it were permissible to have a cartoon of himself published in a local paper. A woman wanted to know how much ground glass it would take to kill a person. A man wanted to know if he could not sue a doctor who refused to accept him as a patient. A woman wanted to know how to tell when her husband was drunk. A bachelor wanted to sell his body when he died, and asked if we would send him the name of a doctor who would pay him $100. A housewife desired to know if she could sue a doctor who declined to answer a call and treat her. Invited to hold a $14,000 bet that one man could drink a gallon of whisky a day for seven days and eat the glass containers and survive. Traffic officer asks if there is any test he can make that will determine if a driver is drunk. Reporter wants to know if the Association will support a certain candidate for office. Similar incidents could be cited at length.

Sustained effort is made to cause the office to be of the greatest possible service not only to our members, but also to the public.

* * *

REDUCED RAILWAY FARES

Arrangements have been made whereby members going by train to the annual session in Coronado may secure reduced railroad fares.

To secure these reduced rates *send your request and a self-addressed stamped envelope* to the State Secretary. A certificate will be mailed to you promptly. Present this certificate to your ticket agent when purchasing transportation. This certificate is necessary to secure reduced rates.

The following information comes from the railway passenger department:

ROUND-TRIP RAIL CONVENTION FARES AND ARRANGEMENTS

Ticket agents of principal rail lines in California, on presentation and surrender of identification certificate, will sell round-trip tickets to San Diego costing approximately one and one-quarter cents per mile, which is less than the first-class one-way fare. Tickets will be sold from May 20 to 28, inclusive, and return limit will be June 7. Stopovers allowed. If longer return limit is desired, consult railroad ticket agent at San Diego prior to June 7.

Following are examples of fares to San Diego, and illustrate the extent of reductions:

From	Convention Round Trip (85%)	Ten-Day Round Trip Coach	21-Day Round Trip First Class
San Francisco	$15.85	$22.58	$24.85
San Jose	14.65	20.90	23.00
Los Angeles	10.90	15.61	17.20

* * *

MALPRACTICE INSURANCE

The following is a general tabulation of the answers returned to the questionnaire recently sent to the members by the Special Committee that has been making an investigation for the purpose of devising a plan to provide adequate protection to those who are sued on alleged claims for malpractice.

TABLE 1.—*Count on Malpractice Poll: California Medical Association**

	Members
$10,000-$30,000 policies	1,812
$30,000 and over	464
Medical Protective Company	1,192
U. S. F. & G. Company	581
Etna Insurance Company	169
Lloyds	136
Increased premiums	772
Withdrawal of insurance	150
Reduction of insurance	197
Interested in group insurance	1,944
Not interested in group insurance	343
Willing to subscribe $50 stock	1,586
Not willing to subscribe stock	698

* As of April 8, 1936.

It was quite evident from many of the answers and comments returned that a considerable number of our members do not grasp or have a clear conception of the basic essentials and factors involved in this legal problem. An endeavor will be made to clarify some of the major points that have caused confusion.

There were those who did not see the need of organizing our own company. Suggestions were made that dues be increased and defense be provided by Association funds. State laws classify this protection as a form of insurance. To provide this protection it is, therefore, necessary to comply with state insurance laws and meet up to the requirements of those laws. This means that a corporation or company must be organized. This protection cannot be given as an Association member's benefit.

Some thought that $50 stock subscriptions were too high. The law requires that $100,000 must be deposited with the Insurance Commissioner before a permit to do business is issued. This amount must be deposited in one lump sum; it cannot be made in payments over a period of time. It has to be made in the form of actual money or sound approved securities. Sound business requires a reserve fund of at least $50,000. Fifty-dollar stock subscriptions from 3,500 members will provide this initial required capital.

These stock subscriptions cannot be applied on premiums. It is only fair that the members who subscribe for stock should have an interest return upon their subscriptions that will make this insurance protection available to those who do not or cannot subscribe for capital stock.

Suggestions were made to place the risk with a given company. That company is not authorized to do business in California.

The question was raised as to ability and experience to operate such a company. It is purposed to employ an experienced director in this special insurance field, and he naturally will be thoroughly experienced and competent.

The risk was mentioned. Under the proposed plan the risk will be greatly reduced. In addition, there will be 40 per cent of the premiums in reserve that other companies pay to brokers, agents, and sales expense. As soon as a safe, ample reserve is built up, premiums can be reduced.

Applicants for insurance will not be accepted until they have been approved by a local committee. Precautions to be observed by policyholders will be a condition, and this will go far in defeating claims.

Experience and practices of existing companies cannot be cited as examples. Their methods of handling claims and suits do not reflect efficiency or approved standards. Their methods have done much to create present conditions and have caused the steady increase in premium rates. Experiences in other states support this statement. Doctors have been called upon to pay and pay, because of certain practices.

Premiums will be fixed at the lowest possible rate—equal the first year to existing rates, and reduced as business and experience justifies. Coverage will be greater and more complete than is obtainable today. Defense and refusal to settle will be an important feature, and will go far in defeating verdicts for unwarranted amounts.

Members will no longer be at the mercy of commercial companies who may withdraw any moment or who may impose unsatisfactory conditions and restrict their coverage.

Our own company, under our own supervision, will restore to us control which should remain in our own hands.

* * *

AMERICAN MEDICAL ASSOCIATION REPORTS

From the reports of officers, bureaus, and councils, published in the April 4 *Journal of the American Medical Association*, the following more important items are extracted and comments appended.

Membership.—California is credited with 5,382 members. This places our State as fourth in size of membership. Our State has 3,318 Fellows and 2,278 subscribers to the national journal. These subscribers could become Fellows simply by making application, and without additional cost. The State is listed as having 10,490 physicians. This is probably true, but many hundreds are retired from practice.

It is stated that we have ten unorganized counties. California has no unorganized counties.

The American Medical Association has 101,754 members and 62,997 Fellows. *Hygeia* has 86,745 subscribers.

Building.—Two stories are being added to the headquarters building, and the brick walls replaced with stone. Alterations and new equipment cost $425,000.

Council on Pharmacy and Chemistry.

The Council has completed thirty years of service. Conditions today are decidedly better, though there are still some physicians who have not yet fully realized the detrimental influence of certain types of low grade pharmaceutical concerns. However, the scientific standing of the average pharmaceutical house is vastly improved.

During 1935 a number of new and unusual drugs were accepted by the Council for inclusion in New and Nonofficial Remedies.

Useful Drugs and the Epitome of the U. S. Pharmacopeia and National Formulary have been thoroughly revised to bring them into conformity with the new Pharmacopeia and the new National Formulary. They enjoy wide distribution.

The Council has continued the issuance of reports on the status of untried or previously unannounced drugs. It is still looked to for the standardization of new products.

The Council has under way a special investigation of catgut sutures.

The series of articles on Glandular Physiology and Therapy reports on a much needed survey of this field and has been a decided aid in evaluating the status of proprietary and nonproprietary glandular products. The articles have been published in book form. Requests for the privilege of translating the articles have been received from nine different countries.

The Council published two articles on Nonspecific Protein Therapy, which should aid in overcoming the chaotic condition of this subject.

The Council on Pharmacy and Chemistry and the Committee on Foods have formed a Coöperative Committee on Vitamins. This committee has made recommendations on vitamin problems, the decisions on which are soon to be issued. It has been emphasized to physicians as well as to manufacturers that in this field particularly a conservative attitude, based on adequate clinical evidence, is the criterion of sound therapeutic progress.

The Council on Pharmacy and Chemistry, in coöperation with the Council on Physical Therapy and the Committee on Foods, has adopted a reorganization plan which provides for a federation of the administrative work of the three groups and a correlation of overlapping problems.

Physicians are making increased use of the conclusions of the Council on Pharmacy and Chemistry, as evidenced by the increase in work.

Bureau of Medical Economics.

The activities of the Bureau of Medical Economics for the year 1935 may be summarized under the following headings:

Sickness Insurance.—Continued study of the subject; collection of reports of foreign systems, statistical data and comparison of vital statistics under these systems with nearly comparable statistics in the United States, where possible; preparation of statements setting forth the characteristics of sickness insurance and distribution of reports and specially prepared articles on sickness insurance.

Medical Service Plans.—Continued study of county medical society plans; criticism of proposed plans; collection of data and descriptive material to show well planned and balanced county medical society programs and the relative emphasis given to medical service plans; an effort to determine the measure of success attained by medical service plans in serving sick people.

Distribution of Physicians in the United States.—A study with fifty-four tables and fifteen charts to show, in part, the distribution of physicians according to population, type of practice, age and geographic location of the physicians listed in the 1931 American Medical Directory.

Medical Relations Under Workmen's Compensation.—Revision of the original report on this subject to include the changes in workmen's compensation laws and relations that were made in 1933, 1934 and the first half of 1935.

Care of the Indigent Sick.—Comment and suggestions offered on plans for the medical care of the indigent proposed by county and state medical societies.

University and College Student Health Service.—Completion of a study of University and College Student Health Service requested by the Board of Trustees in 1934 with summary and conclusions.

Group Hospitalization.—Attempt to define the term "group hospitalization"; compilation of list of group hospitalization organizations; collection of data pertaining to the experience of this new method of providing hospital facilities for the sick; criticism of proposed plans and advice concerning the attitude of the American Medical Association toward such plans.

Relation of Medical Ethics and Medical Economics.—A report nearly completed, which endeavors to show the economic implications in the Principles of Medical Ethics and a discussion of the ethical applications of the principles of medical economics.

Debate on State Medicine.—Preparation of special article for the official handbook of the National University Extension Association Debate Committee; distribution of publications of the Bureau of Medical Economics to medical societies, individual physicians, student debating teams, university extension departments and high school, college and public libraries.

General.—Travel; forty visits to thirty-three cities in eighteen states and the District of Columbia, covering a total distance of 38,610 miles. Speaking engagements and conferences; seventy-eight addresses and conferences with an attendance of 7,900, mostly physicians. Correspondence, 3,263 communications.

PROPOSED PROGRAM

1. Continued study of state-managed medical systems of foreign countries and preparation of data and reports for the use of the medical profession.
2. A study of medical service plans to determine, if possible, the measure of success they have attained in making medical services more easily available to the people of low incomes.
3. Compilation of additional data on distribution of physicians in the United States and in foreign countries.
4. Preparation of new material, to be used in revisions of the publications "Medical Relations Under Workmen's Compensation" and "Care of the Indigent Sick."
5. Completion of study now in progress on group hospitalization.
6. Revision of publication "Collecting Medical Fees."
7. A study of rural medical facilities.
8. Coöperation with Council on Medical Education and Hospitals in furnishing material and suggestions to medical schools on the instruction of medical students in medical economics.

Finances.—The American Medical Association has a reserve of $2,237,478.13 and a net worth of $3,821,102.57. Operating expenses were in excess of one and one-quarter million dollars. The larger part was for publication costs. There are some 550 persons in the employ of the Association.

Judicial Council.—We urge members to read and conform to the following extracts:

GROUP HOSPITALIZATION

Group hospitalization and individual hospital insurance plans have been rapidly spreading during the last few years as an effort on the part of hospitals to collect full payment for the hospitalization of people of low income groups who in the past have been and in the future will otherwise be unable to pay their hospital costs. This effort has been accentuated by the recent increase in the numbers of such cases combined with a great reduction in hospital income from endowment funds and public contributions. It is an effort at self-preservation and secondarily to fix responsibility on a group that during the depression has been rapidly growing among those who have little sense of personal responsibility and rather expect government or charity to care for their needs. Hospital insurance as an economic device now exists almost nationally and is spreading. The American Hospital Association and various state hospital associations are actively promulgating it.

Whether the scheme is or is not financially or economically sound is not the problem of our organization, but it is our business to see that the furnishing of medical service is not included in the sale of insured hospital accommodations. This can be done if a strong stand is taken and maintained by the organized medical profession, which must keep a watchful eye to see that medical care is not initially or later included when the usual sales efforts demand increased benefits to purchasers. It is well known that at the present time independently of the hospital insurance movement various hospitals are invading the field of practice of medicine, sometimes at and sometimes against the desire of the members of our profession involved in such instances. It would seem that in this time of extensive changes in hospital economics the point had arrived at which further marriages between hospitals and staff physicans that make the doctor of medicine the servant of the hospital should be stopped and a series of attempts at divorce among marriages that have already taken place should be instituted. Our accepted ethical principles are adequate at the present time and the coöperation of the Council on Medical Education and Hospitals would be of invaluable assistance. It is not an impossible task but will need a militant local and national ethical spirit behind it and a frowning on those individuals in the profession who on personal grounds do not object to the gradual subjugation of the medical profession in the growth of hospital domination.

ASSOCIATION WITH CULTS

There are several general ethical principles underlying cult practice in its relation to medical practice as carried out by doctors of medicine. Primarily the basis for an ethical code is the well-being of the people at large, who are dependent on the profession of medicine for their health. The profession of medicine is the custodian of the accumulated knowledge in medicine and should use it for the benefit of humanity. This knowledge, technical in nature and developed by experience, can be interpreted to the body of the people only by persons educated to understand it and trained to apply it. Of all those professing to heal the sick only the doctor of medicine has sufficient education and training to make use of the information already accumulated and keep abreast of that being developed continuously. We grant that even though this is true no one is compelled to choose only from this group in selecting his medical attendants. The individual may elect to receive his medical care from himself, his neighbor, osteopathy, chiropractic, naturopathy or Christian science, but he is not entitled while under the care of such irregulars to demand that the man educated in scientific medicine furnish opinion and advice to one so far deficient in education that he cannot so understand and apply that opinion and advice as to be able to make satisfactory use of it. Such degrading consultation would cheat the patient out of that which he might expect and the subsequent failure of results bring discredit on the science of medicine. If this is true of the occasional individual consultation, how much greater must it be in the case of repeated or continual miscegenation!

The Judicial Council is in receipt of much correspondence attempting to justify if not to advocate consultations between doctors of medicine and chiropractors, osteopaths, Christian scientists and other cultists and irregular practitioners; also appearance before their societies, teaching in their schools, and their admittance to hospital practice on a parity with the medical profession. The universal argument for all the procedures mentioned is based on the false premise "to work them gradually into regular medicine." One of our principles of ethics is as follows: "The obligation assumed on entering the profession . . . demands that the physician use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness." Such specious argument as mentioned above seems to the Council to lack substance and be unreal. It seems impossible that knowledge gained through years of scientific laboratory work and teaching can be assimilated by those of less preliminary training and use of scientific methods of investigation and practice ever to fit them to enter a profession the dignity and honor of which. the standards and sphere of influence of which, we are obligated to uphold, exalt and extend for the service the profession can render to humanity. We further are of the opinion that it is just as unpractical to suggest that the small percentage of cult practitioners will through close relationship with the membership of our profession be raised to our professional standards as it is to expect the few rot-speckled apples in the apple barrel to become whole because of the preponderance of sound ones. We believe in continuous, complete separation between the true and the specious physician. Our traditional responsibility for the dissemination of sound scientific treatment for the people and for protection against the insidious influence of the weaker among our own is ever present. If and when the time comes that government through legislation places the cultist on the same legal plane with us, we must strive to maintain the aristocracy of learning and culture. A physical and professional separation as complete as is possible should be established and maintained.

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CORRESPONDENCE CONCERNING CARDS RECENTLY SENT OUT FROM CENTRAL OFFICE

Letter to Secretary from a Member

March 31, 1936.

F. C. Warnshuis, M. D.
Secretary, California Medical Association

Dear Doctor:

I beg to acknowledge your two very neat enclosures for framing in our offices. I have pondered a good deal about the one "You and Your Doctor" ever since receiving it. As I told you last time we met at the Alameda County meeting, I have been in practice long enough to know the many changes that have taken place in all the phases of our economic and professional life. I am also aware that those who are in a position to alter and meet the demands of both contingencies have labored faithfully to overcome them. But while, on the whole, they are on the right track, they allow their good judgment to be choked and the effects of their initiative smothered by tradition, which hampers the results they so ardently seek.

So to return to our "You and Your Doctor" as the pertinent thing in this letter, let me ask you frankly: First, how many doctors will frame it and put it in their offices? Second, if they do, how many patients will read them? We know what should be done, but we have not the courage to do it—at least, not in the way it should be done to bring about the results we are after. We are scared to death of the "dignity" of the medical profession. Well, when it comes to that, the doctors have ruined that more or less, step by step, by their own deeds, jealousies, unprofessional remarks and innuendos, and personal conduct, long ago. So they cannot injure it much more, so far as the public is concerned, than they already have. What we need more than anything else is decency and discipline among ourselves. I know, as I was one of the "privileged ones" for many years and have been just as guilty as many other so-called "Simon-pure" elites of the profession by *laissez faire* without offering any objections.

Competition has been so keen of late years (because of the short-sightedness of those in a position to prevent it) that we are facing a situation that demands courage, wisdom, education, and energetic treatment, lest our younger members starve or become the slaves of the state and nation. You will answer to that, "We have been doing these things for years with *some results*." And my reply is, yes, we have been doing it just as the preachers have been preaching to congregations all over the land to people who voluntarily go to church and do not need the sermons. It is to those who do not go to hear the sermons that the truth should be rammed down their throats. Just as medical propaganda, as you suggest in your leaflet, should be taught to those who never hear or read medical talks or advice, and who never think of health until they are ill. These poor irresponsible human beings, 80 per cent of our population, never think of health in medical or economic terms.

This is, I have said for years, where we should step in with dignity and sincerity. We have worked our heads off in behalf of prevention. The laboratories and research foundations have done a great work, but little has been done to really educate the public concerning the use of the cures and the care of the ills we cannot prevent.

So, why be half-hearted in applying the remedies we know only too well as the only remedies for our dilemma. Why not tackle the enemy in his lair. The public cannot discriminate between the education of the truth, as we know it, and the claims of the quacks, unless we who are in a position to speak in our defense half as *boldly as they do*. We cannot be considered any longer in any other light than business men with sources to sell; many of our doctors have proven that. Therefore, we should approach our problems in a business way as well as with a scientific attitude.

If suggestions are made in the half-apologetic way in which they have been made, it cannot be expected to bring the results we want. Suggestions are not enough. It is facts, constant examples and lessons never to be forgotten, by the wholesale, the public needs, not as we are doing it, sporadically.

Your pamphlet brings this one more pertinent suggestion to me. Why not send a copy to each and all our patients when we mail our monthly statements, or send to all patients on our files. It would reach a larger number of people—rich and poor, educated and ignorant—in a personal way, and bring returns far beyond the cost of such an aggressive campaign. It would give a sense of relief to thousands who do not come to us because of economic embarrassment and pride. It would at once reëstablish an apparent lost confidence in the medical profession and place it on the pedestal it deserves. It would create quantity material for our offices, since we can no longer depend on quality for our financial rewards. It would create a demand for ourselves that is sorely needed and fulfil a duty we owe to the public in all the ways you have so well suggested.

Put some "punch" in our educational campaign by mail, radio, and newspaper editorials or articles in a way that would not be offensive to the most sensitive of our members. Let us not be afraid to proclaim our good intentions and ability to render humanity the altruistic services which must be realized ultimately before each and everyone's final day.

Lest you may not remember me, let me say that I am in no way an advocate of any movement which would cheapen our professional dignity or standing. I have been president of a state society, twice president of the county society, and a member of the National Legislation Committee meeting in Washington, D. C., as well as oculist and aurist for two transcontinental railroads, etc. Therefore, I feel I may offer this suggestion without any fear of misunderstanding.

I hope you will accept this letter in the sincere spirit in which I am writing it. Those of us who have lived when medical and economic problems such as those that are facing our younger members were unknown and unthought of, could well afford to sit back and let events take their course, but I for one, who has enjoyed the blessings of a better era, hope that I can in some way suggest something to help those who have had the courage and forbearance to obtain a medical education reap the reward they so justly deserve, and at the same time help an unmindful public to avail itself of the great services the medical profession can render them.

Coming from a Minnesota man, this may sound presumptuous to some California or Stanford men, but since you are a Michigan graduate I am sure you will understand.

With kindest regards, I am

Very fraternally,

H. A. Beaudoux, M. D.

230 Grand Avenue, Oakland.

* * *

Reply of Secretary

Dear Doctor Beaudoux:

I am very much obliged and greatly appreciate your very interesting letter of March 31. I could probably, without mental reservation, say "Amen" to everything that you have said in your communication.

However, there are just a few points that I would like to have clarified so that you may enter into a more hopeful mood and have a little more faith in your fellow practitioners.

During the past year I have visited every county society in the State and have been in the office of one or more doctors in these counties. I recall that they displayed their membership certificates, and I was pleasantly surprised to see the number of doctors that have their certificates framed and hung on their walls, either in their reception or their consultation rooms. In ——— County I ran into a very happy incident which was related to me by two of the doctors. A general practitioner referred one of his patients to a specialist. Both agreed that an operation was necessary. The patient asked the specialist whether he was not a member of his county medical society. He replied that he was and asked why she wanted to know. She stated she did not believe he was because he did not have his certificate framed and hung on the wall as did the other doctor, and that she was not going to be operated on by a doctor who was not a member of the county medical society.

I have used this as an illustrative point in talks before county societies and also in comment that is made from month to month in California and Western Medicine. It has resulted in the display of these certificates, and I dare say that in time we will be able to have them on display in the offices of the major part, if not all, of our members.

For the past year we have been seeking to contact the public and to acquaint them with the facts as to what scientific medicine has to offer for their physical well-being and the conservation of their health.

We are seeking to overcome the neglect that has been evidenced for so long by the profession's failure to impart to the public just what may be obtained from scientific medicine. I made the statement in a number of my talks that if medicine made no new discoveries it would take the public twenty-five years to learn what medicine has for them today. We are seeking to reduce that twenty-five-year period along several avenues. We are weekly releasing to two or three hundred newspapers of the State a three- to five-page item discussing same phase of public or private health and disease. It is pleasing to note in our clippings from the Clipping Bureau that the newspapers in the lesser populated portions of the State are printing these as well as the papers in our more populated centers. In many instances these articles constitute the only ethical source of information that these people have, and we feel that we are getting our message across.

Our second activity is Public Health Institutes, the first of which, as you probably know, was held in Oakland last November. These have been temporarily abandoned because all of our exhibits have been placed in the Hall of Medical Science at the San Diego Exposition. This building with 22,000 square feet of space is operated and sponsored by the California Medical Association and is filled with the same forty educational medical exhibits. On the opening day over nine thousand people came in and inspected the exhibits, and we trust that some of them at least learned a little. It is our program to give one or two talks in this building every week while the Fair is open until September 9. Some of these will be illustrated talks and some of them will be silent movies. I anticipate that we will reach fully a million people during the Fair season.

We have contacted Parent-Teachers' organizations, noon-day luncheon clubs, granges and farm bureaus, and we are sending speakers to them for meetings that are being sponsored by these organizations.

We have had under consideration the preparation of leaflets tersely worded but yet very clear, and had hoped to include one of these leaflets with the electric-light bills in every county. The reason why this has not been done is the expense involved because it would require the printing of approximately 55,000,000 leaflets and the Association has not the funds to do this at the present time. We are considering the preparation of leaflets or cards, or slogans, if you wish, for our members to include in their monthly statements to their patients. The only thing that is retarding us in that line is again our finances, because printing does cost money, as you undoubtedly know.

I am hopeful that the budget to be prepared and approved at Coronado will enable us to provide these leaflets and possibly some of our members will be glad to pay a small price for each series, which will help financially.

We are, in our county visits, trying to encourage and inspire our members to play the game in a fair manner. I trust you have read some of our editorial comments along this line in California and Western Medicine. Those who have been residents of California for many years are now advising that the leaven is working, and there seems to be an apparent and palpable improvement in the attitude of doctors toward each other. Of course, we never hope to see the day when our profession will be free from its black sheep any more than the clergy or the bar becomes purified.

I am a firm believer in the doctrine of preventing the sins of the fathers from being felt by their sons. In that belief we are endeavoring to create a better and a brighter heritage for the young men in the profession who are about to enter it. You must remember, however, that this cannot be accomplished by one man. No single man ever captured a trench. Battles are only won by the coöperative efforts and unity of action of battalions and regiments and divisions. We are trying to enlist every reputable medical man in California into a division that has for its objective making better doctors, creating a kindlier spirit and feeling among doctors, and to impart to the public the sound fundamentals in regard to the problems of public and private health.

I trust I have given you an insight as to the aspirations that are being applied.

I would like very much to have your permission to publish your letter in California and Western Medicine and a summarization of my reply to you. May I do this?

Thanking you for your communication, and with expressions of esteem and trusting that you will command us whenever you feel that we can be of service, I am

Yours very sincerely,

F. C. Warnshuis, M. D.,
Secretary.

A Teaser.—As a test in spelling ask your friends to write down the quoted sentence as you read it to them. The average number of errors are four. Try it and have fun.

"It is agreeable to witness the unparalleled embarrassment of an harassed connoisseur gauging the symmetry of a peeled and desiccated potato."

COUNCIL MINUTES*

Minutes of the Two Hundred and Forty-First Meeting of the Council of the California Medical Association

Held in Room 302, Sir Francis Drake Hotel, San Francisco, Friday, April 10, 1936, at 1 p. m.

1. **Call to Order.**—The meeting was called to order by Chairman T. Henshaw Kelly, with the following members present: President Robert A. Peers, Speaker W. W. Roblee, Councilors Henry J. Ullmann, Karl L. Schaupp, A. E. Anderson, A. L. Phillips, Henry S. Rogers, C. L. Emmons, Morton R. Gibbons, W. H. Kiger, Harry H. Wilson, C. E. Schoff, T. H. Kelly, C. O. Tanner, Chairman of Public Relations Committee Charles A. Dukes, Editor George H. Kress, Secretary F. C. Warnshuis, and General Counsel Hartley F. Peart.

Absent: Carl R. Howson, O. D. Hamlin; and Edward M. Pallette, on account of illness.

2. **Minutes of Executive Committee.**—It was moved by Councilor Rogers, seconded by Councilor Schaupp, that the minutes of the two hundred and twenty-fourth meeting of the Executive Committee be approved and incorporated as part of the minutes of the Council. Carried.

3. **American Medical Association Correspondence.**—A letter received from the American Medical Association under date of March 2, 1936, relating to syndicated health articles in newspapers, was read, together with reply thereto as formulated by the Special Committee appointed by the Executive Committee.

After discussion, it was moved by Councilor Ullmann, seconded by Chairman of Public Relations Committee Dukes, that the letter be sent in the form approved by the Council and that it be signed by the chairman of the Council. Carried.

Doctor Wilson voted in the negative.

4. **Delegates to American Medical Association.**—The attention of the Council was called to a violation of a by-law by the action taken at the last meeting of the Council whereby a new delegate was appointed to fill the vacancy caused by the resignation of Dr. Junius B. Harris.

It was moved by President Peers, seconded by Councilor Schaupp, that the action of the Council taken at its one hundred and fortieth meeting to fill the vacancy caused by the resignation of Delegate Harris be rescinded. Carried.

5. **Code of Disciplinary Procedure.** — William W. Roblee, chairman of the Committee on Disciplinary Procedure, presented the latest draft of the Code of Disciplinary Procedure, which was discussed in detail.

A discussion of Section 3, Subsection 6, governing "Rules of Hearing, Duties of Referee, Advice as to Procedure Only," was had and on motion of Speaker Roblee, seconded by Councilor Gibbons, the section was approved as amended. Carried.

Doctors Peers and Schoff voted in the negative.

It was moved by Councilor Ullmann, seconded by Councilor Kiger, that the report of the Committee on Proposed Amendments to the By-Laws Governing Disciplinary Procedure for County Societies, be adopted as a whole. Carried.

It was moved by President Peers, seconded by Councilor Gibbons, that a vote of thanks be extended the committee for the splendid work accomplished. Carried.

It was the sense of the Council that the report be published in the Preconvention Bulletin.

6. **Dues of Association.**—The secretary read a letter from the Kern County Society signifying its willingness to voluntarily raise State Association dues $2.50 per member; and stated that remittances for that amount per member had been received.

It was moved by Councilor Schaupp, seconded by Councilor Gibbons, that the Kern County Medical Society be notified that the Council has no authority to accept these additional dues until the House of Delegates acts, and the secretary was directed to return the overpaid dues with an explanatory letter. Carried.

7. **Division of Practice of Medicine.**—Correspondence was presented from the American Medical Association regarding the division of the practice of medicine into professional and technical parts. The secretary presented a statement containing the views of the Association, which statement had been prepared as a result of the American Medical Association's request for further elucidation of our attitude.

It was moved by Councilor Ullmann, seconded by Councilor Gibbons, that in view of the fact that the House of Delegates of the California Medical Association has gone on record stating that diagnostic and therapeutic laboratory procedures are the practice of medicine, the statement as revised by the Council be sent to all delegates of the American Medical Association. Carried.

8. **Nineteen Hundred Thirty-Seven Annual Meeting.** The Council decided that the invitation of the San Francisco County Medical Society to the California Medical Association to hold its 1937 annual session at San Francisco should be considered at the Coronado meeting.

9. **Invitation to the American Medical Association.**—A letter from the San Francisco County Medical Society requesting the California Medical Association to extend an invitation to the American Medical Association to hold its 1938 annual session in San Francisco was read.

It was moved by Councilor Schaupp, seconded by Chairman of Public Relations Committee Dukes that the California Medical Association invite the American Medical Association to hold its 1938 annual session in San Francisco. Carried.

10. **Retired Membership.** — The secretary presented membership data and requests from county societies for the granting of retired membership to five members of our Association.

It was moved by Councilor Ullmann, seconded by Chairman of Public Relations Committee Dukes, that retired membership in the California Medical Association be granted to William K. Lindsay, member of the Sacramento County Medical Society; Elmer William Weirich, member of the San Joaquin County Medical Society; and Carl Renz, Harry Spiro, and William Quinn, members of the San Francisco County Medical Society. Carried.

11. **San Diego Society.**—A letter from the San Diego County Medical Society was presented. The letter was referred for consideration at the annual session at Coronado.

It was moved by Councilor Wilson, seconded by Councilor Schaupp, that the secretary write a letter to each county society stating there is considerable variance between the provisions of the State and County constitutions and by-laws and that all county societies should rectify this so that their provisions will conform to the State Association's Constitution and By-Laws, and that in the event they see fit to adopt disciplinary action, procedure should conform to by-law provisions. Carried.

12. **Membership.**—The secretary presented correspondence regarding a former member of the San Francisco County Society now residing in Kern County.

It was moved by Councilor Gibbons, seconded by Councilor Ullmann, that the secretary be instructed to ascertain the details in this case, consult with the general counsel as to the legal status, and advise the member accordingly. Carried.

13. **Hospital Insurance.**—A communication from the American Medical Association relating to a letter signed by Dr. Howard Johnson, purporting to have had the consideration of the San Francisco County Medical Society and the California Medical Association, was presented.

It was moved by Speaker Roblee, seconded by Councilor Gibbons, that the correspondence be filed. Carried.

The secretary was authorized to write the American Medical Association stating that the matter did not come through the County or State Association.

The secretary presented correspondence from the San Mateo County Medical Society relating to a certain hospital insurance company soliciting policyholders in that community and signifying the intent of the San Mateo Society to abide by the policies and regulations of the State Association.

The general counsel read a letter he had prepared in reply to a request for information received from Doctor Graham, concerning Doctor Graham's possible remuneration for roentgenologic work done for policyholders of the Intercoast Hospital Insurance Company.

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* The minutes of the two hundred and fortieth meeting of the Council of the California Medical Association were printed in the February, 1936, issue of CALIFORNIA AND WESTERN MEDICINE, page 120.

It was moved by Councilor Schaupp, seconded by Councilor Ullmann, that the general counsel furnish the information requested and that the letter of reply, which the Council approved, be used as a basis for answering similar inquiries. Carried.

14. **Honorary Members.** — It was moved by Editor Kress, seconded by Councilor Kiger, that the secretary be instructed to review the list of honorary members and that the Executive Committee be given power to act. Carried.

15. **Roster of Members.**—It was moved by Editor Kress, seconded by Councilor Ullmann, that the roster of members of the California Medical Association be published in the JOURNAL next year in the same form previously employed. Carried.

16. **Current Medicine.**—It was the sense of the Council that, in accordance with the request received, *Current Medicine* be granted the privilege of reprinting articles from CALIFORNIA AND WESTERN MEDICINE upon approval of the editor and the secretary.

17. **Recess.**—At this point the Council recessed until 8 p. m.

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18. **Call to Order.**—The Council was called to order by T. Henshaw Kelly, chairman, with the following members present: President Peers, Speaker Roblee, Chairman of Public Relations Committee Dukes, and Councilors Kelly, Schaupp, Emmons, Ullmann, Anderson, Phillips, Hamlin, Schoff, Rogers, Wilson, Tanner, Kiger, Gibbons, Harris, Editor Kress, Secretary Warnshuis, and General Counsel Peart.

Absent: Councilor Howson and President-elect Pallette, on account of illness.

19. **Malpractice Insurance.** — Dr. George G. Reinle, chairman of the Special Committee, being unable to attend the meeting on account of illness, the secretary submitted a progress report for the committee. A letter from Doctor Reinle, suggesting that further investigations be pursued, was read, and a report on the replies to questionnaires submitted. Consideration was given to a letter from John G. Johnston & Company.

It was moved by Chairman of Public Relations Committee Dukes, seconded by Councilor Schoff, that a vote of thanks be extended to Doctor Reinle and his committee for the work accomplished and that the committee be requested to complete the report. Carried.

It was moved by Editor Kress, seconded by Councilor Gibbons, that the report of the Malpractice Committee be received and that Doctor Reinle be requested to add to his committee the president, the president-elect, the speaker of the House of Delegates, and the chairman of the Council, and that a report be made at the first meeting of the Council at Coronado. Carried.

It was moved by Councilor Ullmann, seconded by Councilor Phillips, that notice of termination of services as insurance broker be sent to John C. Johnston & Company, as provided in the original agreement, and that he be thanked for his services. Carried.

20. **Scientific Sections.**—Morton R. Gibbons presented a report on scientific sections at annual sessions, and it was moved by Councilor Ullmann, seconded by Chairman of Public Relations Dukes, that a copy of the report be sent to each member of the Council for his consideration and suggestions and that the matter be taken up at the first meeting of the Council at Coronado. Carried.

21. **Francis vs. Nelson.**—The general counsel reported on the present status of the case of *Francis* vs. *Nelson.*

22. **Legal Expense.**—The general counsel asked that the travel and hotel expense of his associate, Mr. H. Hazzard, be paid while in attendance at the Coronado meeting.

It was moved by Speaker Roblee, seconded by Councilor Anderson that the traveling and hotel expense of Mr. Hazzard entailed in his attendance at the Coronado session be paid, subject to the approval of the Auditing Committee. Carried.

23. **Tax-Supported Hospitals.** — Councilor Anderson, chairman of the Committee on Tax-Supported Hospitals, submitted a progress report for his committee.

It was moved by Councilor Schaupp, seconded by Councilor Phillips, that the Council ask that the privilege of the floor be granted Mr. Alfred Siemon during the meeting of the House of Delegates at Coronado. Carried.

It was moved by Councilor Harris, seconded by Councilor Ullmann, that each member of the California Medical Association be furnished the tax charts published by the State Chamber of Commerce for use in his reception room and that the cost of postage be financed by the Association. Carried.

24. **Official Visits.**—It was moved by Councilor Schaupp, seconded by Councilor Ullmann, that the secretary and the general counsel be authorized to go to any county society whenever their presence is requested if, in the judgment of the chairman of the Council, it is considered necessary. Carried.

25. **Western Hospital Meeting.** — It was moved by President Peers, seconded by Councilor Rogers, that a speaker be provided for the meeting of the Western Hospital Association and that his selection be left to the chairman of the Council and the secretary. Carried.

26. **Recess.**—At this point adjournment was taken until 9:45 a. m., Saturday, April 11.

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27. **Call to Order.**—The meeting was called to order at 9:45 a. m. by Chairman Kelly, with the following members present: President Robert A. Peers, Speaker William W. Roblee, Chairman T. Henshaw Kelly, Councilors K. L. Schaupp, C. L. Emmons, Carl R. Howson, Henry J. Ullmann, A. E. Anderson, A. L. Phillips, C. E. Schoff, H. L. Rogers, H. H. Wilson, William H. Kiger, M. R. Gibbons, J. B. Harris, Chairman of Public Relations Committee Dukes, Secretary F. C. Warnshuis, and General Counsel Hartley F. Peart.

Absent: Councilors C. O. Tanner, O. D. Hamlin; and President-elect Edward M. Pallette, on account of illness.

The Council having reviewed the action taken by that body on Friday, April 10, approved its inclusion in the official minutes of the one hundred and forty-first meeting of the Council.

28. **Appeal from Kern County Medical Society Disciplinary Action.**—The hour of ten o'clock having arrived, the chairman announced that the Council would hear the appeal of Doctors Joe Smith, J. M. Kirby, Homer Rogers, and R. M. Jones, from the action of the Kern County Medical Society in expelling and suspending them from membership.

Doctors Joe K. Smith and R. M. Jones appeared in person with their attorney, Mr. Harry M. Conron. Mr. Conron stated that he also represented Homer Rogers and J. M. Kirby, who were unable to be present.

Dr. Louis A. Packard appeared on behalf of the Kern County Medical Society.

Both parties were heard by the Council. (See official record.)

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At the conclusion of the arguments the Council went into executive session for the purpose of reading the Kern County record. The entire record was read to the Council, together with the original charges. The several exhibits were reviewed.

Deliberation was then adjourned pending the receipt of the summarizing briefs that were to be submitted by both parties.

29. **Recess.**—At this point a recess was declared until 1:45 p. m.

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30. **Call to Order.**—The meeting was called to order by the chairman of the Council, with the following members present: President Robert A. Peers, Speaker W. W. Roblee, Chairman T. Henshaw Kell, Councilors C. L. Emmons, Carl R. Howson, Henry J. Ullmann, A. E. Anderson, A. L. Phillips, C. E. Schoff, H. L. Rogers, H. H. Wilson, William H. Kiger, J. B. Harris, Chairman of Public Relations Committee Charles A. Dukes, Secretary F. C. Warnshuis, and General Counsel Hartley F. Peart.

Absent: Councilors C. O. Tanner, O. D. Hamlin, M. R. Gibbons and Karl L. Schaupp, Editor George H. Kress; and President-Elect E. M. Pallette on account of illness.

31. **Appeal from San Francisco County Medical Society Disciplinary Procedure.**

The hour of two o'clock having arrived, the chairman announced that the Council would now hear the appeal of Doctors Ferd W. Callison, Harry M. Davis, Herbert Cohn, Edward M. Talbott, Bertram Stone, J. F. Pressley, George G. Heppner, Frank E. Stiles, J. L. McClure, and Louis Clive Jacobs, from the action of the San Francisco County Medical Society in expelling and suspending them from membership.

He further announced that Councilors Gibbons and Schaupp would be excused from the meeting, since they were disqualified from acting in the matter of this appeal because of previous direct connection with the action of the San Francisco County Medical Society. These councilors then left the meeting.

Mr. Albert Rosenshine, an attorney, stated that he represented all the appellants who were present.

Dr. Stanley Mentzer represented the San Francisco County Medical Society.

Arguments were made by both parties. (See official record.)

Both parties agreed to submit briefs.

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Council convened in executive session for deliberation. At 4:15 p. m. deliberation was adjourned to be resumed at the next Council meeting.

32. **Next Meeting of Council.**—The next meeting of the Council was fixed as 2 p. m. Sunday May 24, 1936, at Coronado.

33. **Adjournment.**—There being no further business to come before the Council, on motion of Anderson, seconded by Phillips, the Council adjourned.

T. Henshaw Kelly, *Chairman.*
F. C. Warnshuis, *Secretary.*

COMPONENT COUNTY MEDICAL SOCIETIES

HUMBOLDT COUNTY

The Humboldt County Medical Society held its regular monthly meeting on the evening of April 2 at the General Hospital, with the vice-president, Allan Watson, presiding. Twenty members were present. We had as visitors, Superior Judge Harry Falk and Doctors R. A. Cushman and R. B. Toller of the Mendocino State Hospital at Talmage.

On motion, a letter was directed forwarded to Governor Merriam commending him for the reappointment of Dr. Charles B. Pinkham and former members to the State Board of Medical Examiners.

Dr. Maurice M. Hoilien was elected to membership in the Society.

Dr. Ruggles A. Cushman spoke on *Various Degrees of Psychosis.*

After a very enjoyable dinner the meeting adjourned.

Lawrence A. Wing, *Secretary.*

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MARIN COUNTY

The regular meeting of the Marin County Medical Society was held at the Marin Golf and Country Club on March 26. Councilor Henry Rogers was present.

Dr. Edward Shaw of San Francisco gave a very interesting talk on *Prophylaxis of the Diseases of Childhood.*

Carl W. Clark, *Secretary.*

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ORANGE COUNTY

Twenty-three members of the Orange County Medical Association attended the Tri-County Postgraduate Conference at Riverside on March 22.

There will be no meeting for the month of April, as the date of the Tri-County Postgraduate Conference at San Bernardino is on the same date as our regular meeting. It is the plan that our society go to the San Bernardino conference in a body. The Society feels that these postgraduate meetings are of inestimable value to us because of the high type of, and well-qualified men who are giving the lectures.

I am very happy to announce at this time that we have only seven delinquent members in the Society who have not paid their 1936 dues.

C. Glenn Curtis, *Secretary.*

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PLACER COUNTY

The Placer County Medical Society held its February meeting at the Freeman Hotel, Auburn. The meeting was called to order by President Louis E. Jones at 8:30 p.m.

In addition to President Jones, there were present the following members and visitors:

Members—Doctors Vinks, Padgett, Atkinson, Mackay, Thoren, Lewis, Briner, Peers, Miller, and Russell.

Visitors—Dr. Emile Holman, professor of surgery, Stanford University School of Medicine, San Francisco; Dr. Frank Macdonald, president of the Sacramento Society for Medical Improvement; and Doctor Ward.

The application of Dr. Clarence Quinan of Nevada City for transfer of membership from the San Francisco County Medical Society was read and unanimously accepted. Doctor Quinan thus becomes a member of the Placer County Medical Society.

The application of Dr. Richard T. Hamer of Grass Valley for membership was read. The secretary stated that the matter had been referred to Doctor Warnshuis, State Secretary.

Following the reading of communications, Dr. Louis E. Jones and Dr. Robert A. Peers gave reports on the January 18 meeting in San Francisco between county officers and state officers.

Dr. R. C. Atkinson of Colfax reported a case of glioma discovered during his examination of a three-year-old child, which diagnosis was confirmed by Dr. William M. Miller of Auburn. The diagnosis was confirmed at operation.

President Jones then introduced Dr. Emile Holman, who delivered an illustrated lecture on *The Management of Gastric Ulcer and Its Complications—Medical and Surgical Considerations.*

In his address Doctor Holman pointed out that neither the patient nor the lesion will permit the adoption of a standard procedure. Moreover, one must recognize that the problems presented by duodenal are quite distinct from those presented by gastric ulcer.

Ulceration of the greater curvature is, in ninety-nine cases out of one hundred, malignant and should be so treated, when discovered, by subtotal resection. The fact that 4 to 10 per cent of ulcers on the lesser curvature may, when first seen, be malignant makes it imperative that each peptic ulcer encountered must be considered potentially malignant unless proved otherwise.

As to duodenal ulcer, the most conservative attitude possible must be adopted, so far as surgical measures are concerned; but the most radical attitude possible, so far as medical measures are concerned. Such a medical regimen should exclude such articles from the diet as lead to increased acidity, namely, ingestion of meat should be reduced to a minimum, the use of condiments prohibited, and the use of tobacco curtailed to one cigarette after each meal. Smoking should not be permitted when the stomach is empty; alcohol, likewise, should be avoided. Small meals with intermediate nourishment should be conscientiously followed. Excessive fatigue should be avoided by breaking the day's routine with a half-hour's rest at noon.

Before subjecting any patient to operation, certain preliminary measures are in order: Dental sepsis should be eliminated; x-rays are indicated to determine the presence and degree of stenosis; a chemical analysis of the gastric secretion is indispensable to determine the degree of acidity, since the degree of acidity is a very important determining factor in the choice of operation. When confronted with obstruction, intractable bleeding, perforation, or penetration into surrounding structures, with the resultant uncontrollable pain, surgical assistance is obviously needed, but very careful judgment is necessary in the choice of one's operation.

A simple gastro-enterostomy in the presence of hyperacidity is definitely contra-indicated. In an elderly patient with a low or reduced acid, a gastro-enterostomy is a permissible procedure, and the more chronic the lesion the better the results.

In the presence of a hyperacidity the possible procedures are:

1. Pyloroplasty, with excision of at least one-half of the pylorus, in the hope that regurgitation of the alkaline duodenal secretions into the stomach will take place.

2. A partial gastrectomy and gastro-enterostomy, aimed at reducing the acid-secreting area of the stomach.

Surgery should be followed by continued observation of the patient and medical regimen for a long period.

Doctor Holman's address evoked general discussion, which was participated in by practically everyone present.

Robert A. Peers, *Secretary.*

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SAN JOAQUIN COUNTY

A special meeting of the San Joaquin County Medical Society was called to order at 8:15 p. m., Thursday, March 19, by President T. C. O'Connor. Twenty-two members were in attendance.

A communication from Dr. F. C. Warnshuis, concern- the endorsement of the Inter-Coast Hospital Insurance Company's policies and plans by the San Joaquin County Medical Society, was read. A communication from Dr. F. A. MacDonald of the Sacramento Society for Medical Improvement concerning the Inter-Coast Hospital Insurance Company's plan to enter this county and sell policies for hospital insurance, was read.

The meeting was turned over to Doctor MacDonald and Mr. Bowman, the manager of the Inter-Coast Hospital Insurance Company. They presented the salient facts and policies of the Inter-Coast Hospital Insurance Company and answered many questions.

It was the consensus of opinion among the members that until the California Medical Association had arrived at some understanding with the radiologists and pathologists that no recommendation by the Society be given to the Insurance Company at this time.

A motion was made by Dr. Dewey Powell, seconded by Doctor Peterson, that the Society withhold its endorsement and refer the matter to the Board of Directors and the Committee on Public Relations for further study. The motion was carried.

President O'Connor requested that the May meeting be devoted to legislative matters.

P. B. Gallegos, *Secretary pro tem.*

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The regular meeting of the San Joaquin County Medical Society was held April 2 in the Medico-Dental clubroom.

The customary supper meeting was held at the Hotel Wolf at 6:15 p. m., preceding the regular meeting. There were twenty-two members and guests present. There was no prepared paper given at this meeting, the scientific program being a series of films on rectal and spinal anesthesia, presented by an eastern drug firm.

President T. C. O'Connor called the regular meeting to order at 8:15 p. m.

The petition of Dr. Thomas W. Hagerty for membership being reported on favorably by the Membership Committee and there being no objection from the floor, he was declared a member.

A motion was made by Dr. Dewey Powell, seconded by Doctor Peterson, that the question of the San Joaquin County Medical Society inviting the California Medical Association to meet in Stockton in 1937 be tabled. The motion carried.

A motion was made by Dr. Dewey Powell, seconded by Doctor Boehmer, that the San Joaquin Chapter of the American Red Cross be given $50 by the Society for use in the flood relief. The motion was unanimously carried.

The papers of the evening were presented by Dr. Edward Towne of Stanford University, on *Treatment of Acute Head Injuries,* and Dr. Walter Schaller of Stanford University, on *Discussion of Complications and Sequelae Following the Treatment of Acute Head Injuries.* The papers were discussed by Doctors Pinney, O'Connor, D. Powell, and Dameron.

G. H. Rohrbacher, *Secretary.*

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SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held on Monday evening, April 13, with President Gray presiding.

The speaker of the evening, Dr. Alvin Foord of Pasadena, was introduced by Doctor Wills.

Doctor Foord divided his talk into two parts, first discussing *Normal Hematology,* then following with *Anemias,* their classification, etiology, and diagnosis.

The paper was discussed by Doctors Evans, Nuzum, Ullmann, Findley, and Cavanaugh.

Doctor Ussher reported that the health department wished to put on a diphtheria immunization campaign during the first week in May, and desired the coöperation of the Society.

Doctor Freidell reported on the proceedings of the last Council meeting.

Doctor Ullmann reported upon the transactions of the State Council, and especially stressed opposition to the petition being circulated to open county hospitals to those other than indigents.

Doctors Clinton Wilson, Russel Gates, and H. C. DeVighne were unanimously elected into the Society.

William H. Eaton, *Secretary.*

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SISKIYOU COUNTY

The regular meeting of the Siskiyou County Medical Society was held at the Yreka Inn at Yreka on March 8.

The meeting was called to order by President C. C. Dickinson.

Dr. F. W. Martin's application for membership was read. A motion was made, seconded and passed, that he be admitted to membership upon payment of his dues.

There was no old or new business to discuss. Owing to the epidemics now present in the county the meeting was very poorly attended. It was, therefore, moved, seconded and passed, by the members present that the next meeting of this society be postponed until May.

E. F. Carlson, *Secretary.*

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TULARE COUNTY

The March meeting of the Tulare County Medical Society was held held at Motley's Café Sunday, on the 15th. Dr. J. C. McClure presided.

Doctor Betts reported on the question of postgraduate clinics, and suggested a centralized meeting for the Fourth Councilor District be held rather than individual meetings.

On motion, a publicity committee was appointed to report ways and means of combating the practice of wholesale immunization and vaccination, and to advance a possible solution. Doctors Weiss, Rosson, and Zumwalt are to serve on this committee.

Dr. T. W. Cornwall of San Francisco presented a paper on *Pediatric Problems.* He stressed the important differences in child care as compared with adult reactions. New conceptions of pediatric problems and recent diagnostic and therapeutic aids were outlined in a most instructive manner.

Karl F. Weiss, *Secretary.*

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VENTURA COUNTY

The February meeting was held in Santa Barbara at the Mar Monte Hotel, in conjunction with the Santa Barbara County Medical Society, on the 19th. The meeting was addressed by President Peers and State Secretary Warnshuis.

The regular March meeting was held at the Ventura County Country Club on the 10th.

Following the dinner Doctor Shore called the meeting to order. A symposium was then presented by Doctors Evans, Elliot, and Stone, covering the various phases of peripheral arterial disease.

A brief report of the first annual Conference of County Secretaries and Officers and Council of the California Medical Association and Conference on Hospital Insurance was given by the secretary.

In regard to postgraduate courses, the members prefer to have them held in Santa Barbara. Since we favor holding these courses there, Doctor Hendricks suggested that the date and subjects be left to the Santa Barbara Society, as our members do not have any particular preference for time or topics.

Doctor Coffey suggested that hereafter a brief résumé of our meetings be given to the local newspapers. This résumé will include the names of the members attending.

Doctors Achenbach and Broughton were appointed as the April Program Committee.

* * *

The regular meeting of the Ventura County Medical Society was held at the Ventura County Country Club on Tuesday, April 14.

Following the dinner the meeting was called to order by President Shore.

Doctor Ullmann spoke on the increasing cost of malpractice insurance and of the efforts being made by the State Association to counteract this increase. He urged that all members send in their questionnaires at once. He also suggested that we be sure our by-laws correspond to those of the California Medical Association's regarding the expulsion of members. He further warned us of the new movement under way in regard to open county hospitals and urged that we be prepared to start a plan of hospital insurance in the near future as a means of counteracting said movement.

Dr. Rodney Atsatt was introduced by Dr. D. G. Clark, program chairman, and gave an interesting paper on *Spinal Fractures,* followed by slides. Discussion was started by Dr. Sterling Clark.

The business meeting was opened with a discussion of malpractice insurance. Dr. Sterling Clark suggested that we adopt a conservative course and be certain that such a plan would give us adequate protection without the cost being too high.

A motion was made by Dr. C. Smolt, seconded by Doctor Homer and unanimously passed, that the delegate use his own judgment for the best interests of the Society.

A motion was made by Dr. Sterling Clark, seconded by Dr. S. Smolt and unanimously passed, that the delegate be allowed $40 expense money.

A motion was made by Dr. Grant Clark, seconded by Doctor Coffey, that the July and August meetings be omitted. The motion carried.

Doctor Homer was appointed chairman of the Public Relations Committee. Doctors Achenbach and Broughton were appointed on the Program Committee for May.

Mr. Ben Read is to speak at the June meeting.

A. A. MORRISON, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (51)

Alameda County.—Alfred B. Berkove, John Joseph Carden, Robert Hector, Eugene W. Kenney, J. W. Peck, Charles C. Stevenson, F. Rene Van de Carr, George E. Walton, Richard A. Young.

Butte County.—A. L. Derbyshire.

Humboldt County.—Stephen Fleming.

Imperial County.—William A. Clark, John L. Parker.

Los Angeles County.—Carsten Russell Anderson, William Baker, Robert L. Blackmun, Paul C. Blaisdell, Virginia M. Cobb, Michael R. Godett, Channing W. Hale, Horace A. Hall, L. L. Henry, David Hershberg, S. P. Johnson, John Clifton Jones, Charles J. Lopez, Alden H. Miller, Albert A. Peterson, Esther Somerfeld, Samuel J. Sperling, Robert Leo Stern, Homer M. Walker, A. W. Williams.

Marin County.—Cornwall C. Everman, R. B. Hartman.

Napa County.—Mary C. McReynolds.

Riverside County.—Lawrence E. Brown.

San Francisco County. — Olga Bridgman, Leon Goldman, Asher Donald Havenhill, Edward A. Levin, Salvatore P. Lucia, Horace J. McCorkle, John J. McKay, Mary B. Olney, Joseph M. Swindt.

San Joaquin County. — Thomas W. Hagerty, H. H. Kanagawa.

San Mateo County.—E. W. Bulley.

Santa Clara County.—Roland G. Breuer.

Solano County.—Joseph I. Porter.

Transferred (4)

Louisa Hemken, from San Bernardino County to Los Angeles County.

Thomas F. Thorp, from Humboldt County to San Joaquin County.

Clinton A. Wilson, from Monterey County to Santa Barbara County.

Howard A. Wood, from Los Angeles County to Riverside County.

Resigned (3)

Eugene R. Lewis, from Los Angeles County.

Frank R. Morgan, from Los Angeles County.

Louis Reinard, from Los Angeles County.

In Memoriam

Burg, Beatrice Victoria. Died at Los Gatos, April 4, 1936, age 43. Graduate of the University of Texas School of Medicine, Galveston, 1922. Licensed in California in 1923. Doctor Burg was a member of the Alameda County Medical Association, the California Medical Association, and the American Medical Association.

✠

Drysdale, George Nelson. Died at Crescent City, March 15, 1936, age 70. Graduate of Dalhouse University Faculty of Medicine, Halifax, Nova Scotia, 1891. Licensed in California in 1893. Doctor Drysdale was a member of the Sacramento Society for Medical Improvement, the California Medical Association, and a Fellow of the American Medical Association.

✠

Hare, George Andrew. Died at Fresno, April 4, 1936, age 78. Graduate of the University of Michigan Medical School, Ann Arbor, 1887. Licensed in California in 1892. Doctor Hare was a member of the Fresno County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✠

Heald, Alfred Henry. Died at San Mateo, March 2, 1936, age 39. Graduate of the University of California Medical School, San Francisco, 1931, and licensed in California the same year. Doctor Heald was a member of the San Mateo County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✠

Striegel, Raymond John. Died at Long Beach, February 26, 1936, age 39. Graduate of the University of Buffalo School of Medicine, 1921. Licensed in California in 1927. Doctor Striegel was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Public Health

In theory every physician is a public official just as the attorney is an officer of the court. In public health this theory should be a fact. Personal preventive medicine, that preventive medical service arising from the contact of the physician with his patient, from the physician's intimate knowledge of the patient's life and needs, is stressed too little in private practice. Yet the important problems in public health today are to be solved only by such relationships and the services arising therefrom.

It must follow that the activities of the public health agency should be concentrated upon education in two directions: (1) Education of the profession, to the end that it will be better able to provide the public's preventive medical needs; and (2) education of the public, to the end that it will seek preventive medical service. This is participation in a form welcome to the agency and the health departments as well as the public. Only through such participation may the hope, "every physician a health officer," be realized.

This recommendation is advanced for the consideration of individual members and ultimate action by county societies. It is anticipated that in the near future a sustained movement will be inaugurated to make every physician a practicing health officer.

* * *

Ask Him?

Certain editors of local and farm journals, supervisors, heads and members of farm bureaus and granges, and aspirants for public office, have been presenting specious arguments in favor of opening county hospitals to all peoples. It is a matter of pity that these proponents in their writings and talks reflect a woeful lack of information as to the principles involved and the basic factors that are related to the question. Apparently, a quest has been determined and reasons why it should be obtained are being moulded and distorted regardless of true facts and conditions.

The suggestion is made that at every opportunity the following facts should be presented to refute these distorted and baseless statements. Interview local editors and invite them to acquaint their readers with dependable actualities.

Article IV, Section 31, of the Constitution of the State of California, forbids the use of public funds as gifts to private individuals. This section also forbids the legislature to enact a law appropriating public funds for private use or purposes. Initiatives cannot set aside the Constitution.

Given county hospital per diem patient costs are not accurate or true. In figuring them, costs of investment, interest, and certain supplies, are omitted. The taxpayer pays the difference.

It is frequently stated that private hospitals are *owned* by doctors. This is untrue, as comparatively few private hospitals are owned by doctors.

Professional services available and rendered in county hospitals are not comparable to those rendered in private hospitals nor is the staff properly manned.

Many doctors on services in county hospitals are not paid for their professional attendance on patients.

Many patients admitted to county hospitals could pay for hospital care in private hospitals were they but willing to forego de luxe private rooms and private nurses.

Many patients admitted to county hospitals could pay for physicians' services. Physicians are quite willing to adjust their fees to the patient's ability to pay.

Ask him—the proponent—what he thinks of the following plan, inasmuch as the trend is to endeavor to obtain all one can for nothing or less than cost.

There are many acres of land tax defaulted and years in tax arrears. There are hundreds on relief or on work projects. Why not have the county or state take over these lands? Build barracks or houses on them. Send those on relief to these farms and let them till this land. Plant acres on acres of food products. Harvest the crops and store them in central or community warehouses. Place livestock, cows, sheep, pigs, chickens, in the pastures. Send the milk, eggs, and meat to the community warehouse. Then let every individual, without regard to his financial resources, come and buy milk at two cents a quart, eggs at six cents a dozen, meat at five cents a pound, and other products at prices that equal costs of production. There should be no farmer profit. Compete with the farmer. It is a right we all have!

We are not fostering this suggestion. It is cited as being as tenable and as exemplary as the reasoning of those who demand hospital care in county hospitals at cost.

There is need to impart actual conditions to those who argue erroneously. They need to be shown why they should not repeat an error similar to the one they made when they voted large sums and increased taxes to build county hospitals that are luxurious, expensively equipped and costly to operate for what the constitution, the law and the courts declare can be used only for the care of the poor, the indigent, or in certain emergencies.

* * *

Division of Medicine Into Professional and Technical Branches

The California Medical Association, through its delegation to the American Medical Association, sponsors the following resolution:

WHEREAS, Certain organized lay groups in this country are endeavoring to arrange for the provision of diagnostic medical services along with and as part of hospital services; and

WHEREAS, The provision of such diagnostic medical services will inevitably foster fundamental changes in the practice of medicine; and

WHEREAS, Such changes in the practice of medicine may well result in deterioration of our present medical standards and especially in deterioration in the quality of medical care furnished to hospital patients; now, therefore, be it

Resolved, That it is the official policy of the House of Delegates of the American Medical Association that it disapproves of the division of any branch of medicine into technical and professional portions; and be it further

Resolved, That copies of this resolution shall be brought to the attention of the American Hospital Association and its affiliated groups, to the end that existing arrangements permitting division in medical practice be terminated as speedily as possible.

At the 1935 meeting of the California Medical Association, the following resolution was adopted:

WHEREAS, The California Medical Association is of the firm and unalterable opinion that the practice of medicine at all times should be confined to duly licensed physicians and that it recognizes the practice of radiology and clinical pathology as the practice of medicine; and

WHEREAS, The California Medical Association is of the opinion that a hospital conducting a department of radiology and/or clinical pathology should do so only to the interest of the patient and not for the purpose of profit, and that every hospital should bear in mind that in arranging for diagnostic and/or therapeutic services by such departments it does so as a matter of convenience and not as an essential right; therefore, be it

Resolved, That the Council of the California Medical Association be and hereby is authorized to take such steps as it sees fit to establish mutually equitable relations between hospitals, radiologists and clinical pathologists to the end that the practice of medicine shall be conducted by physicians and not by hospitals; provided, however, that the California Medical Association is unalterably opposed to the division of any branch of medical practice, such as radiology or pathology, into technical and professional portions; and be it further

Resolved, That the secretary of the California Medical Association be and hereby is directed to send a copy of this resolution to each of the several hospitals in the state.

In California and most other states, many hospitals, whenever possible, have employed roentgenologists and clinical pathologists on salary or commission and have actively competed with legally practicing specialists in these fields for all of the ambulatory patients in the community. The considerable profit made from these departments frequently goes to pay deficits incurred in other departments of the hospitals.

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† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

Finding, in California at least, that all diagnosis and treatment rendered in these specialties is the practice of medicine and cannot be legally furnished by hospitals, many hospitals are developing plans for "hospital insurance," are insisting that these specialties can be divided into "professional and technical services." This is their own term and they demand that organized medicine recognize their right to sell, in these "hospital insurance" policies the "technical services" or, as they euphemistically and confusingly prefer to call them, "facilities" of these departments. The "facilities" include the taking of x-ray films, the administration of intravenous, oral, rectal medication in order to obtain proper films, and the securing of various specimens for examination, all done by lay technicians without standard training or standing in law.

The House of Delegates of the California Medical Association firmly believes that no such division should be permitted, especially in newly created organizations of hospitals designed to furnish "hospital service." If condoned, as it has been in part, or permitted, then these technicians will be actively practicing medicine. When the beginning is made, does anyone know where the separation of medicine into professional and non-professional fields will stop?

It does not require a very large imagination to visualize the urologic cystoscope and catheter technician, electrocardiograph technician, otological technician, metabolic technician, pelvimetry technician, and so on *ad absurdum*. Laboratory and physiotherapy technicians are practicing medicine today. Approve or tolerate the professional and technical division of medicine and large numbers will invade the field, lower standards, and submerge medical science.

Anticipating the evil of a division, recognizing that diagnostic and therapeutic services require complete medical training, supervision and knowledge, the House of Delegates of the California Medical Association urges the medical profession to declare its position and assume a positive attitude.

The pleadings and fallacious arguments of some hospital administrators must not warp judgment. Their desire to hold fast to a revenue-producing practice that medicine has wrongly tolerated cannot be made to constitute a sound reason or justification for its continuation. A principle is involved that must be upheld and maintained inviolate. Specious arguments must not becloud the issue. Medicine is an entity that does not permit of division into technical and professional parts. The House of Delegates of the California Medical Association and the Council believe that national and state organizations should go on record by stating their position and the taking of necessary steps to quash this invasion of the field of medical practice.

* * *

Initiatives

Petitions are now being circulated to place upon the November ballot an amendment to the State Constitution that would, if passed, authorize supervisors to admit pay patients to county hospitals. The amendment is so broad that under it medical care cannot also be included.

Another petition is being circulated seeking to secure legislation by initiative that would enact the regulations and antivivisectionists have sought unsuccessfully by means of the bills they have had introduced in previous legislatures.

If the proponents and sponsors of these legislative measures succeed in obtaining the necessary signatures, then it will become incumbent upon those who are opposed to such legislation to engage in a campaign to defeat these two initiatives. It will not be an easy campaign.

Those signing the county hospital petition apparently have given but little if any thought to the tremendous increase in taxes that will be necessary to meet the operating costs of county hospitals. No consideration is given to the effect that will be had upon the type or quality of medical care. Other untoward factors are ignored.

The antivivisectionists cling to their former arguments and sentimental pleas.

Members are urged to embrace every opportunity to enlighten their acquaintances and patients and cause them to see why these proposals should be defeated.

THE WOMEN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION[†]

MRS. THOMAS J. CLARK ....President
MRS. ELMER BELT......Editor and Chairman of Publicity

County Auxiliary Reports

Alameda County.—The Woman's Auxiliary to the Alameda County Medical Association met at the Claremont Country Club for their March meeting on the 20th. A board meeting called for 10:30 o'clock preceded the luncheon hour. The afternoon program contained two lectures, both illustrated with most interesting pictures. Mr. Joseph De Costa, a sanitary engineer of the East Bay Water Company, spoke upon *What Is Behind Our Water Faucet*, and Mr. Harold Gray of the Mosquito Abatement District told of *The Control of Mosquitoes in Alameda County*. At a business session following the program, appointments for the Nominating Committee were made.

Mrs. A. W. Henry, *Publicity Chairman*.

* * *

Los Angeles County. — The Auxiliary was privileged to have Dr. George H. Kress, editor of California and Western Medicine, speak before them at their monthly meeting, held on March 24 in the Association headquarters. Doctor Kress explained in detail the proposed basic science or qualifying certificate law, which will require an adequate scientific foundation for all students desiring to practice the healing art in California. If this proposed law goes into effect the title of doctor will be significant as denoting a certain standard of education, rather than the confusing term it now is. Doctor Kress concluded by saying that this law would make for the protection of the health and lives of the people of the state. The second speaker of the program was Dr. Emily F. Balcom of the Los Angeles Public Health Department, who presented a thought-provoking paper on the medical aspects of the prevention and control of social diseases.

During the business Mrs. Philip Stevens, chairman of the Nominating Committee, read the names of the proposed candidates for election to office for the ensuing year. The ballot reads: President, Mrs. Clifford A. Wright; first vice-president, Mrs. Simon Jesberg; second vice-president, Mrs. Edward M. Pallette; secretary, Mrs. Eric E. Larson; treasurer, Mrs. J. F. Friesen; and directors, Mrs. J. Martin Askey, Mrs. Mark A. Glaser, Mrs. John P. Nuttall, Mrs. W. H. Leake, Mrs. F. B. Settle, and Mrs. A. T. Newcomb. These officers will be installed at the May meeting.

Mrs. Walter Brem, speaking for the League of Women Voters, described the conditions in the Cambria Street School as unfit for the use of the crippled children who are assigned to it. Mrs. John V. Barrow, the Auxiliary president, requested Mrs. Arthur Annis, the secretary, to read a resolution to be presented to the Board of Education requesting that adequate facilities, in the way of proper school buildings, be provided.

Mrs. Edmund T. Remmen was a very gracious hostess at a membership tea held in her home in Glendale on Friday afternoon, March 20. Two new members were enrolled in the Glendale group.

The Long Beach Branch, at their monthly dinner meeting held in the Rainbow Tearoom on March 17, enjoyed a book review given by Mrs. Theodore Brewitt, city librarian.

[†] As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Elmer Belt, chairman of the Publicity and Publications Committee, 2200 Live Oak Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Belt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editor to allocate two pages in every issue for Woman's Auxiliary notes.

The Auxiliary's Philanthropy Committee has made many delightful contacts by first calling on and later presenting Easter baskets to each of the thirty doctors and their families who are incapacitated by illness or old age. The committee has discovered among them some very definite needs and pressing problems which it is their hope to alleviate in part.

Mrs. H. E. Crowe, *Corresponding Secretary.*

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Marin County.—The regular monthly dinner meeting of the Woman's Auxiliary to the Marin County Medical Society was held on February 27 at the Marin Golf and Country Club. A large number of members and their guests were present. A talk on *Tuberculosis Prevention,* illustrated by slides, was given by Miss McGrail, Red Cross public health nurse, who is assisting in the tuberculin tests being given in the county schools. This was followed by a short business meeting, at which Mrs. Harry Hund gave a report of the State Board meeting of the Auxiliary held in Los Angeles earlier in the month.

The March meeting of the Woman's Auxiliary to the Marin County Medical Society was held on the 26th at the Marin Golf and Country Club, with Mrs. Harry Hund presiding in the absence of Mrs. Robert Furlong, the president. The speaker and guest of honor was Mrs. Thomas J. Clark, the state president, who gave a most interesting talk about the growth and aims of the Auxiliary. Mrs. E. Taylor Dykes of Oakland was also a guest of the society, and played two delightful compositions on the piano. After the program a short business meeting was held. Carol Fowler, *Publicity Chairman.*

* * *

Orange County.—At the April meeting of the Auxiliary held Tuesday, the 7th, at the home of Mrs. F. H. Gobar in Fullerton, the following officers for the coming year were elected: Mrs. K. H. Sutherland, president; Mrs. D. C. Cowles, vice-president; Mrs. G. Emmett Raitt, secretary; and Mrs. L. E. Wilson, treasurer. Delegates and alternates for the state convention in May were also chosen. Delegates included Mesdames Dexter Ball, D. C. Cowles, R. C. Green, and G. Wendell Olson. Alternates: Mesdames Merrill W. Hollingsworth, Harry Huffman, G. Emmett Raitt, and E. L. Russell. In her summary of work accomplished by different chairmen, Mrs. Green, president, spoke of the fact that the Auxiliary had forty-two members, six of them new, and that twelve yearly subscriptions to *Hygeia* had been given to organizations otherwise unable to take it.

Mrs. Hollingsworth introduced Dr. Nadina Kavinoky of Los Angeles, who discussed the various aspects of birth control. She spoke briefly of the development of the movement here and in England, China, Japan, and India; of the prevalence of abortion, its death toll, and its effects upon the family and society; and of the common lack of sex adjustment with its influence upon the children of the marriage. She said also that the wealth of the newer health literature on these problems, as well as the saner attitude toward childbirth, brought about by birth-control clinics, were tending to create a healthier mental state toward marriage in the younger generation.

Mrs. Gobar and her assisting hostesses, Mesdames D. C. Cowles, C. F. Kohlenberger, A. G. Nies, John Wehrly and R. P. Yeagle, then served tea, with the newly elected president and secretary presiding at the flower-laden table.

Jessie Q. Raitt, *Publicity Chairman.*

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Sacramento County.—The regular meeting of the Woman's Auxiliary to the Sacramento Society for Medical Improvement met at the home of Mrs. A. K. Dunlap on Tuesday, February 18, with the president, Mrs. Frederick N. Scatena, presiding. Mrs. Krull made a report on the library work at the county hospital, and asked for more books and magazines. Mrs. Binkley reported a membership of eighty-three. Mrs. Brendel reported that she had prepared and delivered for the Auxiliary a large basket of assorted fruits to Dr. and Mrs. Lindsay. The president asked for volunteers to aid during Safety-First Week. The Nominating Committee submitted the following ticket: For president, Mrs. E. O. Brown; first vice-president, Mrs. George Foster; second vice-president, Mrs. A. K. Dunlap; secretary, Mrs. William Van Den Berg; corresponding secretary, Mrs. John D. Lawson; for director, to replace Mrs. E. O. Brown, Mrs. Frank P. Brendel; for directors to serve two years, Mrs. Dave Dozier, Mrs. George Briggs, and Mrs. Leo Farrell.

Mrs. Thomas J. Clark of Oakland, the state president, was then introduced by Mrs. Scatena as the guest of honor. Mrs. Clark gave a short talk about the history of the organization and made a plea for the members to strive to uphold the interests of scientific medicine. The entire group enjoyed meeting our gracious state president and appreciated her coming to Sacramento. The program concluded with vocal selections by Mr. Joe O'Brien, accompanied by Mrs. Zue Pease, which were greatly enjoyed. The hostess, assisted by Mesdames George Briggs, Charles Vanina, Leo Farrell, Lewis H. Sandborn, C. E. Schoff, Proctor Day, and Paul H. Guttman, served a delicious tea.

Sarah L. Brendel, *Corresponding Secretary.*

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At the March meeting of the Woman's Auxiliary to the Sacramento Society for Medical Improvement held on the 17th at the home of Mrs. Frank McDonald, Mrs. E. O. Brown was elected president. The other officers of the ticket selected to serve with her were also installed. Dr. Ruth Storer of Davis gave an interesting talk on flowers and formal gardens of Europe. Annual reports were submitted by the chairmen of committees. At the next meeting delegates will be elected to attend the state convention at Coronado the last of May. Refreshments were then served by the following hostesses: Mesdames Paul Christman, C. L. Bittner, Orrin Cook, Norris Jones, J. D. Coyle, Oscar Johnson, and Frank McDonald.

Alma Lawson, *Corresponding Secretary.*

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San Francisco County.—The Woman's Auxiliary to the San Francisco Medical Society held its regular meeting at 2180 Washington Street on Tuesday, March 17. We were fortunate in having with us on that day Dr. Langley Porter, dean of the Medical School of the University of California. Doctor Porter spoke to us in a friendly and interesting manner, making clear the hardships and difficulties of the doctor's life, and offering some sound advice to the members of the Auxiliary.

The business meeting followed, during which plans for a card party were presented by Mrs. George Becker, social chairman. This card party is to be held in the home of the San Francisco Medical Society on Washington Street on Friday, May 8. All members and those eligible for membership in the Auxiliary are urged to be present on that day and further cement the bond of unity and understanding so necessary to a successful organization. Mrs. J. C. Geiger, the county president, then made the following additional appointments: Mrs. Lionel Player as chairman of Transportation, and Mrs. Frank Rodin as chairman of Organization and Social Welfare.

Mrs. Rodin submitted to the Auxiliary board the following tentative program of activities:

To create a speakers' bureau on health and public welfare subjects.

To make a study of public health, medical institutions, and social agencies in San Francisco.

To assist in programs on health in organizations other than the Woman's Auxiliary.

To contact and to coöperate with the Red Cross, the Parent-Teacher Association, and the Public Health League.

To participate in cultural and public health educational programs for the study of the history of medicine, the national and international public health services, and the biographies of the leaders in medicine.

To sponsor the broadcasting of a series of educational health talks.

To assist the chairman of *Hygeia* to develop an educational program for better health among school children by arrangements with the health director of the second district, California Parent-Teacher Association, whereby each unit shall subscribe to *Hygeia* for the use of the Health chairman, members, and teachers.

To join the chairman of Legislation in the study of bills pertaining to medicine and public welfare.

To create a study group on peace, and on the causes and cure of war.

Amy S. Zumwalt, *Publicity Chairman.*

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Heart Association, Kansas City, May 12, 1936. Gertrude P. Wood, 50 West Fiftieth Street, New York, office secretary.

American Medical Association, Kansas City, Missouri, May 11-15, 1936. Olin West, M. D., 535 North Dearborn Street, Chicago, secretary.

American Surgical Association, Chicago, May 7-9, 1936. Vernon C. David, M. D., 59 East Madison Street, Chicago, secretary.

California Medical Association, Coronado, May 25-28, 1936. Frederick C. Warnshuis, M. D., 450 Sutter Street, San Francisco, secretary.

New Mexico Medical Society, Carlsbad, May 6-8, 1936. L. B. Cohenour, M. D., 219 West Central Avenue, Albuquerque, secretary.

Texas State Medical Association, Houston, May 25-28, 1936. Holman Taylor, M. D., 1404 West El Paso Street, Forth Worth, secretary.

Medical Broadcasts*

The American Medical Association broadcasts over WEAF, the Red network instead of the Blue, as formerly, and certain additional stations of the National Broadcasting Company at 5 p. m., eastern standard time (4 p. m. central standard time, 3 p. m. mountain time, 2 p. m. Pacific time), each Tuesday, presenting a dramatized program with incidental music under the general theme of "Medical Emergencies and How They Are Met." The title of the program is "Your Health." The program is recognizable by a musical salutation through which the voice of the announcer offers a toast: "Ladies and Gentlemen, Your Health!" The theme of the program is repeated each week in the opening announcement, which informs the listener that the same medical knowledge and the same doctors that are mobilized for the meeting of grave medical emergencies are available in every community, day and night, for the promotion of the health of the people. Each program will include a brief talk dealing with the central theme of the individual broadcast.

Pacific Network.—The stations on the Pacific network are KGO KPO KFI KGW KOMO KHQ KFSD KTAR.

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San Francisco County Medical Society.—The radio broadcast program for the San Francisco County Medical Society for the month of May is as follows:

Tuesday, May 5—KYA, 6 p. m.
Tuesday, May 12—KYA, 6 p. m.
Tuesday, May 19—KYA, 6 p. m.
Tuesday, May 26—KYA, 6 p. m.

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Los Angeles County Medical Association.—The radio broadcast program for the Los Angeles County Medical Association for the month of May is as follows:

Saturday, May 2—KFI, 9 a. m. Subject: The Road of Health.
Saturday, May 2—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, May 5—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, May 9—KFI, 9 a. m. Subject: The Road of Health.
Saturday, May 9—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, May 12—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, May 16—KFI, 9 a. m. Subject: The Road of Health.
Saturday, May 16—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, May 19—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, May 23—KFI, 9 a. m. Subject: The Road of Health.
Saturday, May 23—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, May 26—KECA, 11:15 a. m. Subject: The Road of Health.
Saturday, May 30—KFI, 9 a. m. Subject: The Road of Health.
Saturday, May 30—KFAC, 10:15 a. m. Subject: Your Doctor and You.

National Hospital Day.—Hospitals throughout the nation are making preparations to observe May 12, the birthday anniversary of Florence Nightingale, as "National Hospital Day." On this day the public is invited to visit accredited hospitals in their respective communities. These hospitals will keep "open house" in all departments and furnish special guides to escort visitors and explain the intricacies and functions of the many technical and scientific appurtenances of the modern hospital.

National Hospital Day was inaugurated May 12, 1920, on the one-hundredth anniversary of the birth of Florence Nightingale, who is regarded as the founder of the nursing profession. The "day" has been observed each year since with the endorsement of the President, governors of states, and mayors of cities. A committee of national scope, appointed each year by the president of the American Hospital Association, promotes the effective celebration of the day. The California members of this committee this year are: Mrs. Lola M. Armstrong, R. N., editor of *Western Hospital Review,* San Francisco; G. W. Olson, assistant superintendent of the Los Angeles County General Hospital, and Mrs. Leonora Warriner, R. N., Glendale Sanitarium and Hospital.

The American Association for the Study and Control of Rheumatic Diseases.—The American Association for the Study and Control of Rheumatic Diseases will hold its fifth conference on rheumatic diseases at the Phillips Hotel, third floor, on May 11 at nine o'clock, in Kansas City.

An educational symposium on the differential diagnosis of diseases of joints follows:

Russell Haden—Clinical grouping and diagnostic approach to the patient with joint conditions.

Edwin P. Jordan—Differential diagnosis of joint diseases from the standpoint of pathology.

Ralph Boots—The essential features in differential diagnosis of atrophic and hypertrophic arthritis.

Joseph L. Miller—Differential diagnosis between Strumpell Marie and osteoarthritis of the spine.

Stafford Warren—Differential diagnostic points of gonorrheal arthritis.

Frank D. Dickson—Differential diagnostic points of tuberculous arthritis, especially tuberculous polyarthritis.

Ralph A. Kinsella—Differential diagnostic points of rheumatic fever.

Philip S. Hench—Differential diagnostic facts about gout, distinguishing it from other joint diseases.

Willis Campbell—Differential diagnosis of traumatic arthritis.

C. H. Slocumb—Differential diagnosis of fibrositis.

William J. Kerr—Differential diagnostic points of constitutional conditions mistaken for arthritis, which produce skeletal aches and pains.

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* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

American Heart Association.—The twelfth scientific session of the American Heart Association will be held on Tuesday, May 12, from 9:30 to 5:30 p. m., at the Hotel Phillips, Kansas City, Missouri. The program will be devoted to cardiac insufficiency.

The American Neisserian Medical Society. — The American Neisserian Medical Society will hold its second annual meeting on May 18, in the Hotel Statler, Boston, Massachusetts. All who are interested are cordially invited.

Two Scientists and Inventor to Get Medals and One Thousand Dollars. — Two scientists with records of achievement in the fight against disease, and the inventor of the automobile self-starter, will get John Scott memorial awards of bronze medals and $1,000 each.

The three are: Dr. James Ewing of Memorial Hospital, New York, for his research in classifying tumors, both malignant and benign; George F. Kelly, engineer of New York, for his invention of the dust trap which saves mine and tunnel workers from the perils of silicosis; Charles Franklin Kettering of Dayton, Ohio, vice-president in charge of research of General Motors Corporation, for his invention of the self-starter.

The awards were provided by a bequest of John Scott, Edinburgh chemist, who died in 1816, for the recognition of "ingenious men or women."

New York Polyclinic Medical School and Hospital. At recent meetings of the Clinical Society of the New York Polyclinic Medical School and Hospital, the following program was presented:

"Some Improved Methods in Plastic Reparative Surgery" by J. Eastman Sheehan, M. D. (Illustrated by cinematograph film in natural color.)

"Diagnosis and Treatment of Carcinoma of the Colon and Rectum" by Richard B. Cattell, M. D., of Lahey Clinic, Boston, Massachusetts.

"The Present Status of Endocrine Therapy in Gynecology" by Archibald D. Campbell, M. D., of Montreal, Canada.

"The Genesis and Surgical Treatment of Hypertension" by George W. Crile, M. D., of Cleveland, Ohio.

Dr. Roger Anderson of Seattle, Washington, gave a special afternoon lecture on: (1) "An Anatomic Nonoperative Method of Treating Fractures of Both Bones of the Forearm." (2) "Ambulatory Method of Treating Fractures of the Femur."

Distribution of Milk in Eastern Flood Districts.—A noteworthy contribution to public health during the recent flood emergency was the efficient and often extraordinary maintenance of deliveries of pure milk under the most adverse conditions. Reports from health officials and medical authorities in the flood-stricken regions state that in practically all instances pasteurized fresh milk was delivered to persons while they were still unable to evacuate their homes in the flooded areas.

In the Pittsburgh area milk deliveries were made in power boats, rowboats, canoes, flat boats, and all manner of water craft. All milk was pasteurized, and when lights failed, work in the plants proceeded by candle light, with executives manning equipment along with the plant forces, and office staffs turned into helpers. In spite of the force with which the flood swept into Pittsburgh, the trained distributors of milk met all requirements of state and city boards of health.

In New England airplanes were used to fly spare parts of pasteurization equipment to places out of the flood zone, where milk could be prepared for use of flood victims. In Connecticut the Hartford milk plants were put out of commission by failure of power, but milk plants in unaffected areas pasteurized ample supplies of milk which were taken into Hartford by trucks carrying rowboats, through roundabout ways. In one case trucks had to travel a round trip of 250 miles to get milk to East Hartford by avoiding flood waters, a trip that in normal times is only six miles.

World's Sports Physicians Hold Congress Before Olympic Games. — An international sports physicians' congress will be held by the International Sports Physicians' Association in Berlin from July 27 to August 1, to tie up with the XIth Olympic Games. Twenty-one nations, including the United States, have so far accepted the invitation of the international body, which has appointed the delegates to represent the various countries.

For the United States Dr. John Brown, Jr., of New York, and Dr. R. Tait McKenzie of Philadelphia will participate. The other countries to be represented, besides those whose acceptance is still outstanding, are: Argentine, Belgium, Brazil, Chile, Denmark, England, France, Holland, Italy, Japan, Lithuania, Norway, Austria, Poland, Roumania, Sweden, Switzerland, Czechoslovakia, and Hungary.

Among the subjects to be treated at the congress will be metabolism, circulation, respiration, training, hygiene, psychology, traumatology, medical and recreational gymnastics, constitution, biometrics, sport hygiene and aviation hygiene and biological and social questions.

Social Hygienic Society Elects Dr. Ray Lyman Wilbur as President.—Regretfully accepting the decision of Dr. Edward L. Keyes that for health reasons he must resign after twelve years of leadership, the Nominating Committee counted itself fortunate in persuading Dr. Ray Lyman Wilbur, long a vice-president, to accept the president's chair for 1936. Other officers elected at the annual meeting on January 15 were as follows: Vice-presidents, Professor C.-E. A. Winslow of Connecticut, Dr. Albert J. Chesley of Minnesota, Dr. Elizabeth Campbell of Ohio, and Dr. John H. Musser of Louisiana; secretary, Mrs. Henry D. Dakin; treasurer, Timothy N. Pfeiffer. Members of the Board of Directors elected were: For the term ending December 31, 1936: Miss Florence M. Read, Judge Lawrence B. Dunham. For the term ending December 31, 1938: Mrs. James Lees Laidlaw, Doctors Louis I. Dublin, Donald R. Hooker, Thomas Parran, Jr., William A. White, Livingston Farrand, and William F. Snow.

Commenting on the presidency, the *Journal of Social Hygiene* says: "Doctor Wilbur's election guarantees the continuation of the prestige and influence brought to the organization by its previous chief officers, Charles W. Eliot, Abram W. Harris, Dr. William H. Welch, Dr. Hermann M. Biggs, and Dr. Keyes."

Gas Successfully Replacing Air in Brain Operation. Ethylene gas as a substitute for air in the procedure known as encephalography, or removal of cerebrospinal fluid from the brain and spinal chord, has been developed at the University of California Medical School with marked success in a series of considerably over one hundred patients, it was recently announced by the school's department of surgery. The procedure consists of replacing the fluid with the gas, under carefully controlled conditions, and permits the brain itself to be visualized by x-ray.

In the diagnosis of such conditions as brain tumors, epilepsy, or the aftermath of brain injuries, the method has proved of invaluable assistance. The discomfort and period of hospitalization generally incident to this procedure have been greatly reduced by the new development. The ethylene gas is absorbed and disappears in a few hours, whereas when air was used it remained present several days. The ethylene gas also has a mildly sedative effect in certain cases, and this has further tended to decrease the discomfort.

The introduction of air to displace the cerebrospinal fluid has been a common procedure since 1919 at other medical centers. Various other gases, and also radioopaque fluids have been repeatedly tried as substitutes for air, but with indifferent results.

Results of the procedure, used in fifty-three cases, were presented to the American College of Surgeons at its meeting here last fall. Since then the gas has been used on considerably more than thrice that number of cases, always with the same satisfactory results.

Doctor Rosenau Goes to North Carolina.—Dr. M. J. Rosenau, recently retired as dean of the Harvard School of Public Health, has been appointed director of a newly organized Department of Public Health in the University of North Carolina School of Medicine at Chapel Hill. This development involves the coördination of the staff and facilities of the North Carolina State Board of Health and the state schools of medicine and engineering.

Doctor Rosenau, one of the foremost authorities in preventive medicine and public health, as a surgeon in the United States Public Health Service was stationed at Angel Island more than thirty years ago, after bubonic plague first appeared in California. Two years ago he gave extended courses in public health administration at the University of California, Berkeley. It is doubtful that any other individual has achieved a more enviable record as an educator in public health, generally, than has Doctor Rosenau.

Sylvatic Plague. — The growing menace of sylvatic plague in the rodent population of California and the West, was made the subject of a special instructional short course conducted by the state university, state and federal experts, as a means of promoting widespread control. The course was under the direction of the Western Branch of the American Public Health Association.

The plague, which has some baffling aspects, and which is a direct menace to public health, has now spread to a number of points throughout the West, and has caused a few human fatalities. The existence of the menace has occasioned the selection of a special committee by the Public Health Association, the head of this committee being Dr. Karl F. Meyer, director of the Hooper Foundation, University of California.

University technicians, executives of the state and federal public health services and representatives of the federal biologic survey and the State Department of Agriculture, who were invited to lecture, included: Dr. Walter M. Dickie, director of the State Department of Public Health; Dr. Wilfred H. Kellogg, director of the State hygienic laboratory; Dr. Tracy I. Storer and Dr. Morris A. Stewart, University of California technicians; Dr. R. B. Parker, Hamilton, Montana, director of the Rocky Mountain laboratory of the United States Public Health Service; W. C. Jacobsen, supervisor of rodent control, State Department of Agriculture; E. E. Horn, United States Biological Survey, and Dr. Chauncy D. Leake, professor of pharmacology, University of California Medical School.

Mental Test for Chronic Speeders.—Persons who are obviously unfit to drive an automobile or who repeatedly and chronically defy or ignore public safety mechanisms and regulations, should be subjected to a mental and physical examination. This is the opinion of Dr. E. W. Twitchell, clinical professor of neuropsychiatry of the University of California Medical School. According to Doctor Twitchell it would not be practicable to subject every driver or prospective driver to such an examination, but it certainly should be done in the case of those who persistently defy necessary driving restrictions and menace the lives and limbs of others.

According to Doctor Twitchell the automobile mortality and accident situation may be expected to become much worse before the people of the country rise up and unitedly demand relief. The number of incompetents now driving cars is constantly on the increase, and it is presumed that this number must increase to the saturation point of human tolerance and endurance before there is a change.

Doctor Twitchell states he has occasionally found it necessary to submit reports to the State Division of Motor Vehicles regarding patients who were obviously unfit to drive. In one instance, he said he obtained cancellation of the license of one insane man who was being permitted to operate his car freely on crowded streets and highways. Another, a taxicab driver in one of the San Mateo peninsula towns, who was suffering from a severe nervous complaint, also came to his attention, and he has warned a number of epileptics and members of their families that these sick persons should not drive an automobile.

American Medical Association Annual Session.—California members appearing on the American Medical Association Program at Kansas City.

W. J. Kerr, chairman of Section on Medicine.

Leon Goldman, San Francisco, Section on Surgery.

Lyle G. McNeile, Los Angeles, Section on Obstetrics and Gynecology.

William B. Thompson, Los Angeles, Section on Obstetrics and Gynecology.

Howard F. West, Los Angeles, Section on Obstetrics and Gynecology.

Warren D. Horner, San Francisco, Section on Ophthalmology.

Otto Barkan, San Francisco, Section on Ophthalmology.

Edward C. Sewall, San Francisco, Section on Nose and Throat.

H. J. Profant, Santa Barbara, Section on Nose and Throat.

Albert W. Snoke, San Francisco, Section on Pediatrics.

Clifford W. Sweet, Oakland, Section on Pediatrics.

Emil Bogen, Olive View, Section on Pediatrics.

M. A. Gifford, Bakersfield, Section on Pediatrics.

Chauncey D. Leake, San Francisco, Section on Pharmacology.

Henry W. Newman, San Francisco, Section on Nervous and Mental.

J. M. Nielsen, Los Angeles, Section on Nervous and Mental.

John B. Doyle, Los Angeles, Section on Orthopedics.

Ellis W. Jones, Los Angeles, Section on Orthopedics.

John C. Wilson, Los Angeles, Section on Orthopedics.

Sylvan L. Haas, San Francisco, Section on Orthopedics.

LeRoy C. Abbott, San Francisco, Section on Orthopedics.

W. H. Kiger, Los Angeles, Section on Proctology.

Wilbur Bailey, Los Angeles, Section on Radiology.

New York City Lowers Five Health Records.—Dr. John L. Rice, commissioner of health, city of New York, has reported to an organization of milk dealers concerning the remarkable achievements of his department in 1935 as follows:

"During 1935 New York City established five new records, the lowest general death rate (based on the estimated population), the lowest infant mortality rate that the city has ever known, the lowest diphtheria rate, the lowest typhoid rate, and the lowest tuberculosis rate. You have been in the milk business long enough to know the relationship between a safe milk supply and the prevalence of typhoid, tuberculosis, and deaths of infants."

American Public Health Association.—Drawn from every state in the Union, from Canada, Cuba and Mexico, officials from the various branches of federal, state, city, and county health departments and other agencies active in disease prevention and health promotion will gather in New Orleans on October 20 to 23 for its sixty-fifth annual meeting.

Dr. Thomas A. Parran, Jr., Surgeon-General of the United States Public Health Service, is president-elect of the Association and will be honored at New Orleans.

National headquarters of the American Public Health Association are 50 West Fiftieth Street, New York, N. Y., and Dr. Reginald M. Atwater is executive secretary.

Accidental Deaths Bring Heavy Losses.—There were 543 accidental deaths recorded in California last November, 295 of which (55 per cent) were due to automobile accidents. There were 138 deaths due to accidents in the home—more than 25 per cent. There were but 75 deaths due to other public accidents (not motor vehicle) and only 31 accidental deaths occurred in the occupational group—less than 6 per cent of the total.

Of the 295 motor-vehicle deaths, 118 were of persons gainfully employed at times of the accidents. Of the total number, 72 were of persons under twenty-five years of age and 223 were of persons twenty-five years of age and over. Eighteen such deaths were among individuals under fifteen years of age.

The Pan-Pacific Surgical Congress: Honolulu, Hawaii.—The forthcoming meeting (August 6 to 14) of this internationally important organization offers a gorgeous vacation prospect for the summer of 1936. Leaving Los Angeles on August 1 (San Francisco, July 31), the United States and Canadian contingent will have five matchless days on the summer Pacific to enjoy themselves without stint, and to consolidate themselves into the American delegation. As a background to a series of brilliant social occasions in honor of visiting international authorities, delegates and their families will enjoy the modern pageantry of ship life at its apex. Pacific luxury liners will offer the attractions of tennis courts, gymnasium, outdoor swimming pool, and a dozen fascinating deck sports, the library or spacious music rooms, while the gay rhythm of the night club, scarcely an octave away, will lure many. Last, but not least, there is the well-renowned culinary magic which emanates from the kitchens of these floating palaces. Even under ordinary circumstannces such a prospect might be considered extraordinarily attractive. Combining it in prospect with frequent informal conferences and round-table discussions, and with constant cordial interchange of scientific opinion and the opportunity to meet and know interesting personalities, the prognosis is excellent to a degree.

With judgment born of true wisdom the Program Committee has allotted five days, the first five days in Honolulu, to the relaxations and enjoyments for which Hawaii is noted. Accommodations will be at the matchless Royal Hawaiian. Everything is available to gladden the heart of the enthusiastic vacationist: The famous beaches for swimming, surf boarding, fishing, tennis, motor trips, a two days' airplane tour of the most beautiful islands in the Pacific, inspection of volcanos, visits to native villages, a night at the famous Mauna-Seaside Hotel, golf at the famous Waialae Club, and a galaxy of brilliant social functions available or not, according to the mood of the voyager. Finally, and most important, the unstinted famous hospitality of our hosts, the physicians of Honolulu. Five days of unmitigated pleasure in a vacation setting second to none in the world!

Little need be said of the scientific sessions beyond the fact that the programs in the various sessions are solid with the names of international authorities. Leaving aside the aspect of international exchange of opinion, this meeting would be identified as outstanding merely by the authoritative names on the program. Considering its potentialities, however, for the adjustment of moot points in international concept, for example, the matter of basic methods of compiling statistics for comparison between nations—the consideration of conservative versus radical measures in the management of medical and surgical conditions as practiced and advocated in different countries. Such matters and a hundred others will most certainly bring out of these scientific sessions not only personal advancement in intellectual concepts, but actual trends of thought of a sort which lead to world-wide scientific advancement. Many physicians or surgeons may well feel privileged to contribute, in however conspicuous a manner, to discussion of such basic potentiality.

Returning, the delegates and their families will have another five days of ship life; another leisurely period in which to relax and digest the mental pablum of the scientific sessions; more opportunities to exchange opinions and to gather loose ends. Returning voyagers will have a day in Los Angeles, arriving in Los Angeles August 20, and may continue to San Francisco the following day, arriving in San Francisco August 22. Inquirers will find, to their surprise, that the total cost of such a trip is scarcely more than a trip to any meeting in the East. There can be little comparison in matter of returns. These sessions are outstandingly attractive from so many angles that the consideration of cost and time involved becomes minimized. Where there is the remotest possibility of completing arrangements eventually, inquiries should be made at once, since the registration and sailing list is mounting rapidly. Information is available elsewhere in this journal.* Dr. George W. Swift at 902 Boren Avenue, Seattle, is president and general chairman of the meeting.

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* See adv. page 23.

Degree of Doctor of Medicine (Honorary) Bestowed on Dr. Karl F. Meyer.—On Wednesday evening, April 23, 1936, in the headquarters building of the Los Angeles County Medical Association, the faculty, alumni, and invited guests of the College of Medical Evangelists of Los Angeles met in special convocation to hear an address on the subject, "Neutropic Viruses and Diseases Caused by Them," delivered by Dr. Karl F. Meyer, director of the Hooper Foundation for Medical Research and professor of bacteriology in the University of California. At the conclusion of the guest-speakers' address, Dr. Percy T. Magan, president of the College of Medical Evangelists, spoke of the many medical researches that had been carried on by Professor Meyer in his work at the Hooper Foundation, of the inestimable value these studies had been to medicine in general and to California physicians in particular; stating that because of this service to the State's citizens and medical profession, the trustees and faculty construed it an honor to bestow upon Professor Meyer the degree of Doctor of Medicine, honorary. Dr. Howard Morrow, president of the California State Board of Health and professor of dermatology in the University of California, was called on and he also told of the place Doctor Meyer had made for himself since coming to California, expressing the thought that since Doctor Meyer was so constantly called in consultation by California physicians to aid in solving obscure problems in medicine, the degree granted by the College was most worthily bestowed, and a proper addition to the other degrees that had been earned by the recipient. Dr. Edward M. Pallette, president-elect of the California Medical Association, followed with thoughts in similar vein, mentioning also that practically all the public health regulations of California, dealing with the important canning industry of the State, had been largely elaborated by Doctor Meyer, and so efficiently that the material returns to California citizens therefrom could be estimated only in income returns of hundreds of thousands of dollars annually. The convocation was preceded by a dinner, Dr. Benton N. Culver acting as toastmaster, and Professor Meyer being introduced by Dr. Wilton L. Halverson, health officer of Pasadena.

Committee for the Study of Suicide.—An organization to be known as the Committee for the Study of Suicide, Inc., was incorporated last December under the laws of the State of New York and began its activities early in January.

The committee plans to undertake a comprehensive study of suicide as a social and psychologic phenomenon. To achieve this the following general outline was adopted.

1. *Intramural studies* of individuals inclined to suicide in selected hospitals for mental diseases.

2. *Extramural studies* of ambulatory cases afflicted with suicidal trends or with obsessional wishes for their own death.

3. *Social studies* of suicide will be undertaken along the following general lines. Various attempts at suicide will be followed up by experienced psychiatric social workers; all cases will be studied from the standpoint of social background and history and those who failed in their attempts or have recovered from injuries following a partially successful attempt (prolonged unconsciousness or physical illness) will be urged to submit to psychiatric and psycho-analytic treatment in the hands of the intra- or extramural therapeutic agencies which will be available to the committee.

4. *Ethnologic studies,* that is, comprehensive investigation of suicide among primitive races, will be one of the first concerns of the committee, for suicide is a rather frequent occurrence among many primitive races still extant and when studied may throw some light on suicide as a phychobiologic phenomenon.

5. *Historical studies* of suicide will be pursued systematically under the auspices of the committee, so as to make available a scientific history of the phenomenon as a social and medico-psychologic problem.

The committee was organized under the guidance of its first chairman, the late Dr. Mortimer Williams Raynor, medical director of Bloomingdale Hospital, who died on October 5, 1935.

Dr. Henry E. Sigerist, professor of the history of medicine at Johns Hopkins University, and Dr. Edward Sapir, professor of anthropology at Yale University, are consultant members of the committee. They will advise and guide in that part of the work which touches their respective fields.

The executive offices of the committee are located at Room 1404, the Medical Arts Center, 57 West Fifty-Seventh Street, New York City, and will be in charge of an executive assistant.

Bacillus He Defeated Is Fatal to Doctor.—In every country of the world today there are men, women and children alive because forty-five years ago an earnest young physician and a grizzled medical educator risked horrible deaths to identify and give battle to a tiny bacillus that had been killing men since time immemorial.

The young physician and his teacher won a fight against the germ and both were honored throughout the world.

Ten billion bacilli might have laughed today, for on April 13 the earnest young physician died, at sixty-five, of gas gangrene, the revolting disease that he fought and whipped forty-five years ago.

He was Dr. Harlow Brooks of New York, one of the foremost diagnostic physicians of the United States. His collaborator of the nineties, Dr. William H. Welch, died several years ago. And even the laboratory assistant who aided them was made a widow by the same bacilli, for she became Mrs. Harlow Brooks in 1899.

The germs that caused Doctor Brooks' death are known as Welch's bacilli, in honor of the senior of their discoveries. They normally are present in the majority of human bodies, but become potent only in a condition of bodily debility. Doctor Brooks had been ill of grippe and a liver infection.

The gas gangrene that caused his death is so called because the bacilli that cause it produce great quantities of gas inside the body. Before he and Doctor Welch isolated the germ, it always was fatal. It still is one of the most dangerous of the ills of mankind.

Federal Food and Drug Administration Reports.—The following patent medicines were recently seized on charges of bearing false and fraudulent curative claims for the conditions named: "Bi-Sarcol," a solution of vegetable laxatives, licorice, baking soda and other salts in water, for toning the stomach and kidneys, for run-down conditions, and for enriching the blood; "Clark's Famous Liquid Formula No. 6," consisting of kamala, mineral oil, carbon tetrachlorid, turpentine, sassafras and water, for worms in poultry, hogs, dogs, rabbits, and cats; "Diaplex," a dried herb mixture for diabetes; "Gowan's Preparation," a salve containing wintergreen, camphor, eucalyptol, menthol, turpentine and carbolic acid, for pleurisy, spasmodic croup, coughs, congestion, inflammation, and pneumonia; "Kompo Bile Salts Tablets," a red-coated pill containing bile salts, phenolphthalein and small amounts of calcium, magnesium, iron and aluminum salts, for liver and kidney ailments, gall-stones, heart trouble, hardening of the arteries, neuritis, rheumatism, neurasthenia, insomnia, ulcers, and cancer; "Lur-Eye," a petrolatum salve containing principally wintergreen oil and thymol, for tired, bloodshot, or inflamed eyes, and granulated lids; "Pfeiffer's Sore Throat Remedy," a solution of ammonium chlorid, potassium chlorate, sodium benzoate and wintergreen in water and glycerin, for sore throat, tonsillitis, hoarseness, thrush, and ulcerated sore mouth; five "Vegetrate" preparations (called A-44, A-45, A-410, A-417, and BFI), consisting of varying proportions of dried materials, such as garlic, onions, lettuce, parsley, endive, beet tops, spinach, cinnamon, cranberries, seaweed, rhubarb root and calcium carbonate, for hay fever, asthma, diabetes, hypertension, hyperacidity, and other conditions; "G. B. Williams Pills," containing mercury and antimony compounds, laxatives and an alkaloidal drug, for biliousness and liver disorders; two shipments of witch-hazel, one labeled as a treatment for wounds, painful swellings, lame back, piles, sore throat, neuralgia and rheumatism (the article in this instance was also short volume), and the other for rheumatism and piles; and six ointments and liniments sold at auction, bearing claims for inflammation, congestion, asthma, bronchitis, catarrh, chest colds, sore throat, croup, boils, and pains (Adams Vapor Ointment); for cuts and for healing (Adams Menthol Salve); for nervous headaches, muscular rheumatism and nasal catarrh (Adams Menthol Jelly); for muscular rheumatism, lumbago, stiff neck, neuralgic headache, sciatica, muscular cramp, bronchial cough, spasmodic croup, and acute pleurisy (Adams Painon Liniment); the remaining two being in violation of the Federal Caustic Poison Act.

"Farastan Mono-Iodo-Cinchophen Compound" was also seized because the name was held to be false and misleading, since the article consisted almost entirely of cinchophen (97 per cent).

Unusual Operation by the Late Dr. Saxton T. Pope Is Brought to Light.—Details of an unusual operation performed by the late Dr. Saxton T. Pope, staff member of the University of California Medical School and former and beloved secretary of the California Medical Association, have just come to light in an article by Isabelle Armstrong, published in the current issue of the Alumni Bulletin of the school.

The article states that while conducting a lecture some years ago, Doctor Pope saw a woman fall from the third story of a building across the street. Excusing himself, he went to her assistance. Some time later he returned with the announcement that he had performed a cesarean operation on the woman, who had been killed in the fall, and had brought forth a living baby.

Doctor Pope was characteristically non-committal regarding the occurrence, but it developed later that the woman had hurled herself from the window for some unknown reason. Seeing that he could not save her, Doctor Pope immediately devoted his attention to the baby, effecting a safe delivery on the spot.

The great versatility of Doctor Pope as a man, as well as his skill as a surgeon are touched upon in the article. He was an accomplished musician, and he also received wide attention as an expert with the bow and arrow. Ishi, the aborigine, who was a charge of the University while a study was being made of his tribe, of which he was the last surviving member, was a friend and companion of Doctor Pope.

LETTERS

Concerning dinitrophenol as a cause of cataracts: Its use dangerous.

April 21, 1936.

To the Editor:—Commenting on Doctor Rodin's excellent article on dinitrophenol cataract in the April issue (page 276) of California and Western Medicine, I wish to state that the list of cases which I have assembled in Southern California has been enlarged since I wrote my discussion for his paper.

I now have a list of twenty-three cases in this section upon which I have complete statistics and checked against duplication. I have sixteen cases from reports in the literature, only three of which occurred in California and, in addition, verbal reports of twenty-two cases from physicians in various parts of this State. Combining these with the thirty-two cases in Rodin's series would make a total of eighty known cases in California. The most disconcerting feature about the recent cases is that they occurred many months after discontinuance of the drug.

seventeen proprietary preparations contain this drug, and

In a communication from Doctor Geiger, health officer of San Francisco, I am informed that approximately seventeen proprietary preparations contain this drug, and I understand from Doctor Hosford that the Health Department of San Francisco has taken steps to prohibit the sale of dinitrophenol to the laity. Similar measures of a more inclusive nature should be taken to restrict the sale of this drug in the State.

I have been informed of physicians who are still prescribing dinitrophenol. Of course, any physician who prescribes it from now on is inviting upon himself not only severe criticism, but medico-legal retribution as well.

Sincerely yours,
Harold F. Whalman, M. D.

Concerning thanks to Governor Frank F. Merriam (March issue, page 146).

State of California
Department of
Professional and Vocational Standards
Sacramento

April 9, 1936.

Dr. George H. Kress
Los Angeles, California

Dear Doctor:

Thanks for your thoughtfulness in sending me the March copy of California and Western Medicine. I personally showed the article to the Governor, who read it and asked me to express to you his appreciation.

With best wishes, I am

Fraternally yours,
William G. Bonelli, *Director*.

Concerning California Medical Association cards sent out with membership cards.

Santa Ana, March 30, 1936.

To the Secretary:—Thanks for your new card for framing along with membership card. It is a capital idea!

I explain it to my patients this way: That there is a usual flat charge, depending on service given, but we give reductions from this for people whom we feel can't afford the regular fee. This disabuses their mind of the idea that we charge exorbitantly if we feel they have means.

Sincerely yours,
Willis P. Baker.

201 East Seventh Street.

SPECIAL ARTICLES

GROUP HOSPITALIZATION ON A PERIODIC PAYMENT METHOD: ALAMEDA COUNTY PLAN*

The Committee on the Cost of Medical Care has determined very definitely that it is not the high cost of staying in the hospital that burdens, but the unevenness of sickness that causes a strain on society for hospital and medical care and creates most of the present financial health problems.

Plan Is Not New.—Hospitalization on a periodic payment plan is not new. We have in this vicinity some of the earliest plans started in the United States, namely, the French and German hospitals of San Francisco. In 1930 the Baylor University Hospital of Dallas, Texas, started an experiment to apply hospitalization to gainfully employed groups on a payroll deduction at actual cost of hospital care for respective groups. In 1932 the Superior California Hospital Association of Sacramento, California, enlarged upon this plan by including all hospitals of the community and adjacent territory in such a plan. Today there are in operation in the large centers of population of the United States over seventy such organizations. The Association of Hospital Service of New York, in operation nine months, has 60,000 members with 174 hospitals participating.

The 1932 Mandate of the Alameda County Association.—In 1932 the Alameda County Medical Association gave a mandate to a committee to develop a plan for hospitalization on a periodic payment basis. This committee developed a plan in conjunction with the accredited hospitals. At a special meeting, held in August, 1933, the Alameda County Medical Association approved the plan submitted by the committee. Upon the advice of the committee's attorney, Mr. Hartley Peart, the launching of the plan was withheld until a definite ruling was obtained from the Insurance Commissioner, determining whether such a plan was insurance would come within the province of the insurance law. The Attorney-General's opinion of January, 1934, stated that the plan was insurance and that to operate such a plan it would be necessary to deposit $25,000 to guarantee the performance of the contract.

Economic conditions at that time had not improved materially and it was not thought advisable to solicit funds to accumulate such an amount necessary to launch the work.

Assembly Bill 246: 1935 California Legislature.—The hospitals of Alameda County, in coöperation with other voluntary hospitals of the State of California, after much consideration prepared a bill which was introduced in the legislature in January, 1935. This bill was officially known as Assembly Bill 246, and provided for hospital care by nonprofit corporations to sell this service to the public under the jurisdiction of the Insurance Commissioner without posting the required deposit required by the Insurance Act of the State of California. After some difficulty, with amendment added, the bill was finally passed by both Assembly and Senate, signed by the Governor, and became a law on September 15, 1935.

However, after careful consideration and study, the committee has decided that it would be impossible to launch this plan under the limited provisions of Assembly Bill 246 because lay organizations and insurance companies will sell complete hospital service, offering competition which cannot be met.

Greater Advantages of a Mutual, Nonprofit Organization.—The Superior California Hospital Association of Sacramento, spoken of earlier, has now posted the required amount of money and has changed its type of organization to a mutual, nonprofit association coming under the jurisdiction of the Insurance Commissioner of this State. This organization has already attempted to enter this territory and has contacted the hospitals for care of their patients so that they might sell their policies in this community. The contract offered, in the opinion of your committee, is undesirable in many respects and, after further deliberation, they have reached this conclusion: The plan should be controlled by the Alameda County Medical Association and the accredited hospitals in this community.

What the Present Alameda County Plan Aims to Accomplish.—A plan so controlled will permit:

1. Free choice of doctor and will in no way disturb the present relationship between the doctor and the patient.
2. Free choice of hospital.
3. Conserve patient's resources for payment of doctor's bills.
4. Pay the hospital bill.
5. Hold off health insurance and state medicine.

In accordance with the provisions of the policy that your committee has drawn up, the corporation shall furnish its beneficiary members in time of illness, ailment or injury with twenty-one days' hospitalization, which shall include the following hospital service:

(*a*) Board and room—ward accommodations.
(*b*) General nursing.
(*c*) Operating room.
(*d*) Operating room service.

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* The attention of members of the California Medical Association is called to this article, and particularly to the fact that a sufficient number of physicians in Alameda County have subscribed to a $25,000 fund, which the laws of California demand shall be existent before insurance coverage can be sold.

(*e*) Drugs, with the exception of serums, vaccines, spiritous liquors, and expensive proprietary drugs.

(*f*) Dressings.

(*g*) Physiotherapy treatments.

(*h*) The contract will indemnify the patient to pay the pathologist for ordinary clinical laboratory service.

(*i*) Indemnify the patient to pay the roentgenologist for the following services:

1. In cases of accidental bodily injuries, all such services necessarily incident or required, exclusive of therapy, in the opinion of the attending physician, for the relief and treatment of the beneficiary while a registered hospital bed patient.

2. In cases of bodily illness or disease only when necessary to assist in diagnosis during hospitalization, and expressly excluding all therapy and any diagnostic services which could have been performed prior to admission to the hospital.

This contract in no way disturbs the relationship between the pathologist, roentgenologist, and the hospital.

When Does This Hospitalization Service Become Effective to Policyholders?—Service is effective after becoming a member as follows:

1. Accidental injury—one day later.

2. For sickness or ailments contracted or having their first signs or symptoms more than seven days later.

3. For illnesses or ailments requiring major or minor operation that are contracted or having their first signs or symptoms more than fifteen days later, except in the case of a hernioplasty, tonsillectomy, or adenoidectomy, which shall be twelve months.

Diseases and Injuries Not Included.—Services not provided for are: Tuberculosis, cancer, venereal infection, mental or nervous disorders, industrial accidents, alcoholism, drug addiction, rest cure, intentional self-inflicted injuries (sane or insane), normal pregnancy including cesarean, abortions, diseases directly or indirectly due to war.

Other Conditions of the Hospitalization Policy.—No medical examination is required, but hospitalization of any beneficiary member must be by recommendation by a legally qualified doctor of medicine only, whose credentials would be recognized by hospitals accredited by the American College of Surgeons.

In cases of bona fide accident or injury or sudden illness, members in good standing in the corporation while absent from their usual residence will be provided hospitalization in any licensed hospital in the United States or Canada for a period not to exceed fourteen days.

Age limits: Members of a gainfully employed group between the ages of eighteen and sixty-five, unless the age limit has been specifically waived by the Board of Directors.

Dues: One dollar per month. (Discounts may be given to large groups.)

Plan of the Holding Organization.—This plan is feasible and financially sound. It will be operated and controlled by a Board of Directors, consisting of representatives of the Alameda County Medical Association and representatives of the accredited hospitals holding contracts.

* * *

Note.—Following the above statement to members of the Alameda County Medical Association, who were invited to attend an organization meeting, the names of members of the staffs of the accredited hospitals of the county were given to committees for request for coöperation by payment of a $100 subscription. In one week 150 members had deposited their checks for $100 each. The $25,000 fund required by the Insurance Commissioner of California is assured, and as soon as deposited the campaign for the sale of hospital contracts will be started. It now seems probable that employees in groups will take contracts to the number of 5,000 or more, and it is believed that 20,000 contracts will be sold within the year.

Thus, the entire Alameda County plan as recommended by Dr. George Reinle in his presidential address at Riverside has been carried out, and the principles as recommended by the Public Relations Department and endorsed by the House of Delegates at Del Monte have been made to come into being in at least one county in California. The entire project is under the joint control of the Alameda County Medical Association and accredited hospitals in Oakland and other Alameda County communities.*

NEW YORK CITY'S GROUP HOSPITALIZATION PLAN

From the *Hospital Service News*, official bulletin of the Associated Hospital Service of New York, 370 Lexington Avenue (at Forty-first Street), New York, N. Y., in its March 31 issue, the following excerpts are printed. The plan has many features in common with the Alameda County plan.

* * *

THREE-CENTS-A-DAY PLAN SETS WORLD RECORD

Surpasses London in Ten Months

New York's new three-cents-a-day plan for hospital care has established a world's record by enrolling in a little over ten months more subscribers than the London Hospital Saving Association enrolled in its first year.

More than 66,000 are in good standing in the New York plan, according to Frank Van Dyk, executive director of the Associated Hospital Service of New York.

The London plan had 62,500 subscribers at the end of its first year. At the end of fourteen years, the London plan now has more than a million and a half enrolled.

The New York plan is operated on a nonprofit, noncharity basis. Subscribers receive complete hospitalization for twenty-one days in semi-private accommodations in any one of 174 hospitals in return for subscriptions at the rate of three cents a day.

The English and American plans both have the same object of enabling men and women in receipt of regular wages or income to save for the hospitals while in health, and to pool their savings so that they may collectively reimburse the hospitals for services rendered, thus relieving subscribers from hospital expense at a time when they can least afford it.

Mr. Van Dyk explained that, unlike the London plan, which involves some charitable assistance for subscribers, the New York plan pays the full cost of semi-private hospital care.

The steady increase in enrollment momentum is shown in the following table, which gives the number of subscribers at the end of each quarter:

First quarter	13,511
Second quarter	29,422
Third quarter	50,200
Fourth quarter (to date)	66,095

The first year of operation for the New York plan will not be completed officially until May.

* * *

COMMENTS ON PLAN ARE GATHERED FROM DOCTORS IN NEW YORK AREA

Many Physicians Give Approval

Physicians and surgeons in the New York metropolitan area who have hospitalized patients who are members of the three-cents-a-day plan were asked for comments upon the plan. Typical of the replies, all of which are filed at Associated Hospital Service headquarters, are the following:

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* The information for this report has been submitted by Dr. Charles A. Dukes, chairman of the Committee on Public Relations of the California Medical Association.

Helped School Teacher

"I had occasion to take advantage of the hospital plan when I operated on a school teacher. From his point of view he was very well satisfied, as he saved the hospital bill. From my point of view there was no difference in the service that he received and in that given a private patient."—S. D. H.

Important Contribution

"I was completely satisfied with the way in which the Hospital Service Plan worked out in a recent case of mine.

"I believe that the plan is providing a very important contribution to the solution of the problem of the cost of medical care to the public and should help the hospitals and medical profession as well."—S. I.

Excellent System

"I do not hesitate to recommend membership in Associated Hospital Service to any of my patients and think that it is an excellent system."—W. F. A.

Helps Small Income Group

"I am very anxious to organize a group which will include myself to become members of your insurance plan.

"My experience with your plan has been a very delightful one. I was the first attending physician to send one of your insured cases to a Brooklyn hospital. The plan enabled Mr. W. to be operated upon without any mental hazards as to how much his hospital expense would be. In addition, his wife was expecting a baby and his income was a limited one, so that I feel that your plan was certainly of the greatest aid in Mr. W.'s excellent convalescence."—M. K. E.

* * *

MEDICINE SPEAKS

The *New York State Journal of Medicine* printed the following editorial in its December 1 issue. It will be interesting to many of our members who wonder what organized medicine thinks of New York's three-cents-a-day plan for hospital care:

Progress at Three Cents a Day

"A number of practitioners who have had experience with the group hospitalization insurance offered by the Associated Hospital Service have expressed their satisfaction with the workings of this plan. Patients who might otherwise be compelled to defer treatment are able to enter a hospital when necessary without applying for charity or contracting debts. The physician is more often and more promptly paid because available funds are not eaten up by institutional charges.

"Naturally, there can be no claims of perfection for so new a system. Some roentgenologists, for example, fear that the inclusion of 'ordinary roentgenograms' in the insurance agreement may result in exploitation of their services. Offsetting this possibility is the fact that organized medicine is represented on the voting board of the Associated Hospital Service, and the latter may terminate its contract, after thirty days' notice, with any hospital guilty of a breach of good faith. No institution with any foresight will sacrifice a source of regular income for an occasional illicit profit at the expense of its medical staff.

"Cities which have not yet inaugurated group hospitalization services are in a position to benefit by the experience of Greater New York and other communities in which such plans have been in operation for various periods of time. Provision for hospitalization nullifies one of the principal arguments for obligatory prepayment for sickness by writing off the item which is most likely to overwhelm middle- and working-class patients. Unlike compulsory health insurance, group hospitalization does not interpose a lay bureaucracy between doctor and patient nor disturb the relationship of the profession to the public in any way. It neither raises taxes nor lowers income to any material extent. This is constructive reform, designed to encourage individual independence rather than create a class of perpetual dependents on the state."

* * *

QUESTIONS AND ANSWERS

Q. *"Does the payment of three cents a day cover all medical treatment or exclusively hospital service?"*

A. Hospital service only. You have your own doctor or surgeon whom you pay direct.

Q. *"Can I go to a hospital for an examination?"*

A. No. The hospitals do not want to compete with practicing physicians. Therefore, the plan is restricted to bed patients.

HALL OF MEDICAL SCIENCE—SAN DIEGO EXPOSITION

By LYELL C. KINNEY
Chairman of the Committee

Rated as one of the two outstanding exhibits at the California Pacific International Exposition, the Hall of Medical Science, with its 22,000 square feet of floor space, houses an unusual array of displays showing what the medical profession is doing in the treatment of disease and its prevention. It is the result of three months' intensive effort on the part of the committee, composed of representatives of the California Medical Association, and the San Diego County Medical Society.

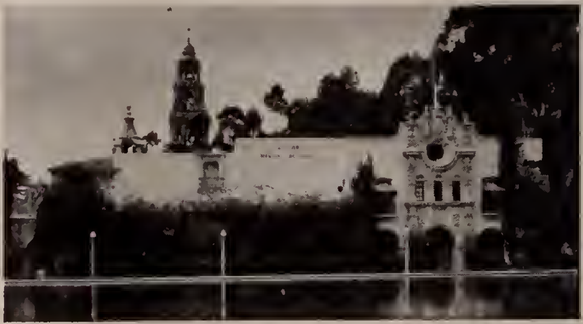

Fig. 1.—The Hall of Medical Science at the San Diego International Exposition.

Over thirty societies and organizations have contributed material. The extensive fifteen-unit display, owned by the California Medical Association, is housed in a large room by itself. In the main body of the Hall are exhibits brought from the East, Middle West, and the Pacific

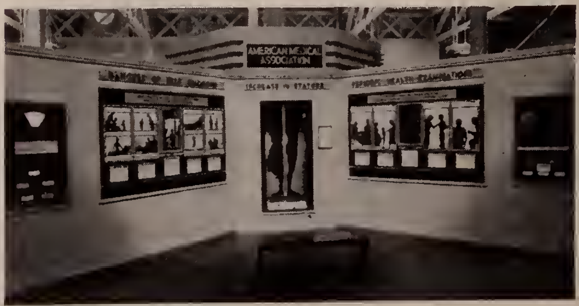

Fig. 2.—One of the angles in the exhibit of the American Medical Association.

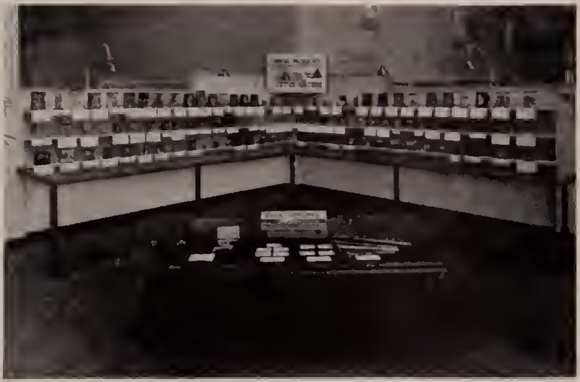

Fig. 3.—A corner of the Human Pathology exhibit.

Coast. The American Medical Association is represented by an educational display, covering over a thousand square feet. Grouped around it, and extending throughout the entire length of the building, are to be found vivid portrayals of what the medical profession is doing in the care of the crippled child, the prevention of infectious disease, the lowering of maternal mortality. The plastic surgeon and the orthodontist show what they can do in the rebuilding of human deformity.

An exceptionally complete series of embryos and fetuses, beginning with a three-millimeter specimen, is attracting a great deal of attention. It is rivaled only by the group of one hundred pathologic specimens, well-lighted and clearly labeled. In connection with them, one sees what the bronchoscopist recovers from the lungs of the unfortunate, and how he does it.

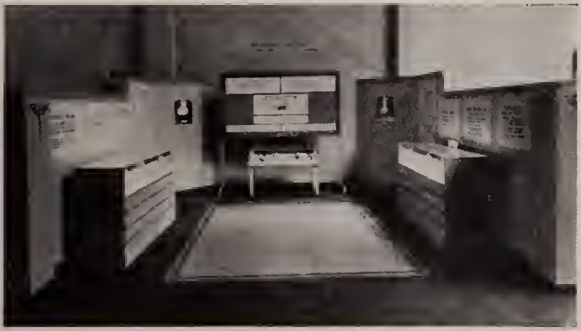

Fig. 4.—Alcove of the Maternal Welfare exhibit.

Two other special features that are drawing a great deal of attention are the "surgeries" and the x-ray exhibit. Side by side are representations, life-size, of an operation as performed in 1882, and a modern "stream-lined" operating room with all its modern equipment. A 250 K. V. treatment machine, with a complete set of Coolidge tubes, together with over five hundred transparencies (representing, all told, an investment of over $80,000), completes the picture.

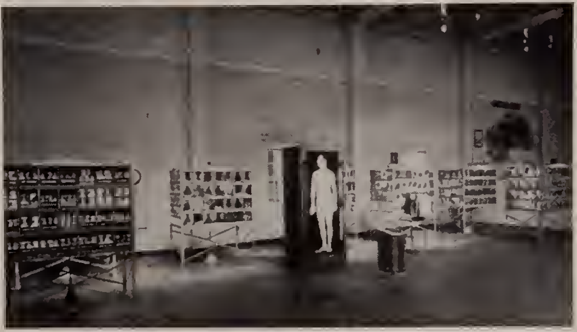

Fig. 5.—Exhibit of the Chicago Roentgen Society and the Pacific Roentgen Club.

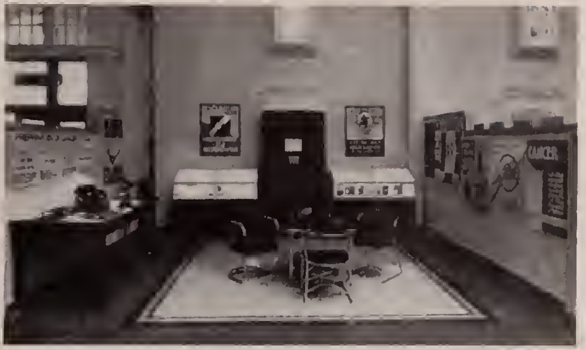

Fig. 6.—Exhibit booth of the American Society for the Control of Cancer.

The Exposition management has given the committee an auditorium, in connection with the Hall, seating about five hundred. Moving pictures are being shown daily for the instruction of the public. A series of talks on medical topics is being prepared for the summer season, together with seminars on related subjects. Every opportunity is being utilized to present to the layman ethical scientific medicine and its achievements.

PHYSICIANS CORPS FORMED AS FORESTRY AID

Volunteer Doctors' Group Pledges Services in Emergencies

By Charles G. Dunwoody

For many years the California State Chamber of Commerce, believing that California's forests and their protection represented an important economic problem in the future progress of the State, has endeavored through its leadership to interest the citizens of California in actively supporting the official agencies charged with forest protection to the extent that these forests may be wisely used and losses from fire, insects and disease be kept to a minimum.

As a result of this activity, literally thousands of people normally engaged in private occupations each year devote a considerable amount of time and travel at their own expense in the interest of forest protection.

The majority of these good citizens devote their energies toward the securing of adequate forest protection laws and regulations that will assure permanent and more satisfactory conditions within the boundaries of our great forests.

A few direct their energies toward physical forest protection work. The medical profession, not to be outdone by other groups, has recently entered the field of forest protection through the formation of the California Forestry Medical Corps.

This unique organization is the first of its kind to be organized in any country. It is sponsored by the California Medical Association and the California State Chamber of Commerce and at present has within its membership 485 outstanding physicians and surgeons.

It was formed for the purpose of providing organized and efficient medical service at all going forest fires. It functions when asked to do so by any representative of the State Division of Forestry, United States Forest Service, or a county fire warden. Its value has already been demonstrated during the past fire season.

On the recent Malibu fire in Southern California the corps performed its duties with precision and efficiency, and proved itself an indispensable adjunct in the case of a major forest conflagration.

Twenty-four-hour medical service was maintained on this fire, with eighty-two medical officers of the corps actively participating. Twenty-two hundred cases of injuries to fire fighters were successfully treated.

This service was rendered without cost to the individual treated or the governmental agencies in charge of the fire. Each doctor furnished his own transportation, medical equipment, and his time as his contribution to forest protection.

On another fire during the past season a medical officer of the corps was notified of an injury occurring on a mountain at around a 7000-foot elevation. He immediately borrowed a pair of heavy shoes, climbed the mountain and found a man with a broken spine.

Carrying the patient down the mountainside, the doctor placed him in a corps ambulance and sent him to the hospital, after giving him such treatment as was possible in the field.

The corps serves as a unit of the Conservation Department of the State Chamber of Commerce. It is headed by E. W. Murphy of Los Angeles, chairman of the statewide Conservation Committee.

Under Mr. Murphy's direction are a chief medical officer, an executive officer, six regional medical officers, fifty-eight county medical officers, and three hundred and ninety local medical officers and thirty liaison officers.

In addition to the above the corps has sixty-five registered nurses and thirteen ambulance units in its service.

Each medical officer is assigned to a specific district and signs an agreement to the effect that upon request of a forest officer he will proceed to the scene of a fire and give first-aid treatment to injured fire fighters, remaining on the job until properly relieved.

A dispatching system has been set up whereby in case of a major conflagration doctors are sent to all five camps and relieved when necessary.

A complete staff of liaison officers is maintained and during a major conflagration they patrol the region, making sure that the doctors are supplied with proper medicines and other necessary equipment. They also keep the county medical officer or his dispatcher informed of activities and needs in the field, arranging for relief doctors, etc.

The corps has one rescue unit of non-medical men who are trained in fire rescue work. The ambulance units are furnished to the corps for the most part by county hospitals equipped for this work.

The American Red Cross has fully coöperated with the corps, and where both organizations have been on duty at a fire has given splendid coöperation, working shoulder to shoulder with the medical officers.

During the winter months of low fire hazard, the medical officers conduct schools of first aid for forest officers. They also advise the forest officers as to the proper standardized equipment to be kept in their regular first-aid kits.

The corps is also available for duty in connection with any major public disaster, such as serious earthquakes.

The corps, in addition to being of great value on forest fire duty, has perhaps one of the greatest possibilities possessed by any individual group for educating the public concerning forest problems.

It would be difficult to estimate the number of people that would be reached through one forest fact imparted to a patient by a doctor, but if it went no further than the patient himself, the value of the corps in helping make the public more forest protection minded would be tremendous.

Membership in the corps has been limited to five hundred. To qualify for membership a doctor must be passed upon and receive the approval of the California Medical Association. This procedure assures the corps of a personnel composed of only doctors of high standing in the profession. Already other western forested states are planning to organize similar groups.

California can well be proud of this unique and original contribution to forest protection that is being given without thought of personal gain by the members of the medical profession.

MORTALITY FROM CERTAIN DISEASES AMONG CHILDREN UNDER FIFTEEN YEARS OF AGE IN CALIFORNIA

1906–1934*

By Walter M. Dickie, M.D.

San Francisco

PART I

During the time that the California State Department of Public Health has been keeping statistics on deaths from the various communicable diseases, there have been reductions in rates among most of them.

As these communicable diseases affect children under the age of fifteen to a large extent, a special study of these reductions has been made by the Division of Vital Statistics, with interesting results. For these studies the period from birth to fifteen years of age has been divided into three groups: (1) under one year of age; (2) from one to four years of age; and (3) from five to fourteen years of age. The rates are based on the estimates of population for each age group, and the rates are computed per 100,000 population in each age group. The twenty-nine-year period studied has been divided into one four-year and five five-year periods for ease in computation. These periods are 1906-1909 (four years), 1910-1914, 1915-1919, 1920-1924, 1925-1929, and 1930-1934. A comparison of the rates in each five-year-period is given for each disease studied.

TYPHOID FEVER

Age group under 1. In the period 1906-1909 this group shows ten deaths, with a death rate of 6.8 per 100,000 estimated population. This rises to 7.4 in the five-year period 1910-1914, and then steadily declines until in 1930-1934 there is a death rate of 1.2 per 100,000 estimated population of this age group.

In age group 1-4, the death rate initially is much higher than in the age group under one year. This decreased in each subsequent five-year period, the greatest decrease coming between the second and third periods, until in 1930-1934 the death rate for this group is 0.9 deaths per 100,000 population of the age group. The actual number of deaths in this group falls from 102 during the first four years of the study to sixteen during the last five years.

The progress in the age group 5-14 years has been similar to that in age group 1-4, but not nearly so marked. Beginning with 246 deaths during the first four years, the number of deaths for the last five years of the study is reduced to eighty-five, with a corresponding reduction in death rates for the group from 18.6 per 100,000 population to 1.8 deaths from typhoid per 100,000 population.

Details of these changes are shown in the accompanying table.

Deaths from Typhoid Fever by Age Groups, California, 1906-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1906-1909	10	6.8	102	18.1	246	18.6
1910-1914	16	7.4	117	13.8	246	12.3
1915-1919	8	3.1	44	4.3	139	5.7
1920-1924	9	3.0	54	4.4	129	4.1
1925-1929	5	1.4	17	1.1	80	2.0
1930-1934	5	1.2	0.6	0.9	85	1.8

MALARIA

The occurrence of deaths from malaria, as from typhoid fever, has been greatly reduced in this State in all the age groups studied. Especially is this so in the age group under one, where it is reduced from a rate of 19.7 per 100,000 estimated children under one in the quadrennium 1906-1909 to 0.8 per 100,000 in the years 1930-1934. Numbers have been reduced from twenty-nine in the earlier period to three during the last five years studied.

A similar picture is presented by ages 1-4, where the rate has been reduced from 3.9 in the earlier years to zero in the last five years. Numbers fall from twenty-two in 1906-1909 to zero in 1930-1934.

The reduction in age group 5-14 has not been so marked; beginning with a total of twenty-one cases and a rate of 1.6 per 100,000 population of this age group in

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* From the office of the Director, California State Department of Public Health.

Deaths from Malaria by Age Groups, California, 1906-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1906-1909	29	19.7	22	3.9	21	1.6
1910-1914	40	18.4	42	5.0	38	1.9
1915-1919	22	8.7	28	2.7	16	0.6
1920-1924	15	5.0	12	1.0	12	0.4
1925-1929	4	1.1	10	0.7	2	0.05
1930-1934	3	0.8	....	....	4	0.1

1906-1909, it rises slightly during the next five years to thirty-eight, or a rate of 1.9, and then falls rapidly to four deaths in 1930-1934, giving a rate of 0.1 per 100,000 estimated population. Details of these changes are shown in the above table.

SMALLPOX

This disease has never been responsible for many deaths in California, particularly among the younger age groups, and although we find a great deal of variation, in general, the rate has fallen somewhat. In the three age groups under study, the one comprising children under one shows the highest mortality rates. With seven deaths in the period 1906-1909 we find a death rate of 4.8 from smallpox. This falls to zero during the next five-year period, then rises to 5.0 and gradually recedes to 0.8 during the last five years.

In the age group 1-4 the rate is nearly uniform over the entire period preceding 1929, but in the last five years it falls to 0.1 from 1.0 per 100,000 group population, during the preceding five years.

In actual number of deaths there is a change from four during 1906-1909 to a maximum of fifteen during the five-year period of 1925-1929, falling to two during the last five years.

The death rates in the 5-14 age group are fairly uniform over the whole period, rising to a high point of 0.4 per 100,000 estimated group population with eleven deaths during 1920-1924, then falling to 0.1 with one death in the last five years of the study.

Smallpox, California, 1906-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1906-1909	7	4.8	4	0.7	....	....
1910-1914	....	....	6	0.7	4	0.2
1915-1919	2	0.8	7	0.7	5	0.2
1920-1924	15	5.0	11	0.9	11	0.4
1925-1929	15	4.3	15	1.0	9	0.2
1930-1934	3	0.8	2	0.1	1	0.1

SCARLET FEVER

The general tendency in mortality from scarlet fever has been downward throughout the period of study, although, like measles, there is a rise in number of deaths and rates in all three age groups studied during the period 1920-1924. The rates fluctuate somewhat in all these groups, but in general they show a downward tendency.

The age group under 1 shows a lower death rate than is shown by either of the older age groups. Beginning with fourteen deaths and a rate of 9.5 per 100,000 population the rates and numbers gradually fall during the next decade, but rise in the period 1920-1924 to eighteen, with a rate of 6.1 per 100,000 population of the group. During the next decade it reaches a low of five deaths from scarlet fever, with a rate of 1.2 per 100,000 group population.

The age group 1-4 has a higher death rate. Beginning with ninety-seven deaths from scarlet fever, a rate of 17.2, it rises to a high point of 162 deaths, with a corresponding rate of 19.2 per 100,000 group population in the next period. After a fall to a rate of 9.0 in 1915-1919, it again rises to a rate of 14.6 per 100,000 with a high point of 181 deaths. It then receded in the next two periods to a low of 5.3 per 100,000 group population.

The age for school children also shows a death rate somewhat higher than that for children under one year of age, but slightly lower than that for children one to four years of age. We find that at the beginning there are 137 deaths, giving a mortality rate of 10.4 per 100,000 population and this goes to 172, with a rate of 5.5 per 100,000 population in 1920-1925; dropping to 145 with a rate of 3.2 per 100,000 in 1930-1934.

Mortality from Scarlet Fever, 1906-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1906-1909	14	9.5	97	17.2	137	10.4
1910-1914	11	5.1	162	19.2	146	7.4
1915-1919	8	2.3	92	9.0	88	3.6
1920-1924	18	6.1	181	14.6	172	5.5
1925-1929	6	1.7	94	6.3	126	3.2
1930-1934	5	1.2	91	5.3	145	3.2

MEASLES

There have been fluctuations in deaths from measles within the different five-year periods, but in general there has been a typical tendency downward. Children under one year of age have the highest death rate from this cause, although those dying between the ages of one to four years contribute the greater number of deaths. The number of children under one year of age dying from measles has varied from 152 with a rate of 103.2 per 100,000 estimated population in that group in 1906-1909, through a peak of 190 deaths with a death rate of 64.0 in 1920-1924 to 122 in 1930-1934 with a corresponding rate of 30.5 deaths from measles per 100,000 children under one.

The number of deaths each period among children one to four years of age is higher than in age group under 1, but the rates are uniformly lower. Beginning with 287 deaths, 1906-1909, and a rate of 50.8, it falls, but rises again in 1920-1924 to 526 deaths with a rate of 42.4. The next five years the rate falls, but rises slightly during the last five years of the study to a rate of 20.8 per 100,000 group population corresponding to 359 deaths.

In the age group 5-14 the number of deaths and the rates fall markedly below those of the earlier age groups. These are the children of school age, and while there is probably a large incidence of cases of the disease, the mortality rate falls markedly. Rates are more nearly uniform for the whole period under observation, varying from 6.6, with 87 deaths during 1906-1909 to 142 deaths with a corresponding rate of 3.1 per 100,000 age group population in 1930-1934.

Mortality from Measles, 1906-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1906-1909	152	103.2	287	50.8	87	6.6
1910-1914	170	78.3	406	48.1	87	4.4
1915-1919	114	45.2	242	23.7	85	3.5
1920-1924	190	64.0	526	42.4	156	5.0
1925-1929	104	29.6	257	17.1	83	2.1
1930-1934	122	30.5	359	20.8	142	3.1

WHOOPING-COUGH

This disease at the present time is the most fatal of the communicable diseases among children under one year of age. The case fatality rate is high, and the death rate is higher than for scarlet fever, diphtheria, and tuberculosis among infants. Among the next age group, one to four years, it is still a major cause of death, but is exceeded by tuberculosis and diphtheria. In the age group 5-14, it has taken a very minor place among death-producing communicable diseases.

In 1906-1909, there were 380 deaths of infants under one year, giving the high rate of 258.1 deaths from whooping-cough per 100,000 population of that age.

The next five-year period shows a rise to 618 deaths, with a corresponding rate of 284.6 per 100,000 group population. We notice quite a rise in the number of deaths during the decade 1920-1929, but the mortality rate is somewhat lower than in the preceding five-year period. In the period 1930-1934 the number again falls, with a corresponding decrease in rates. Despite these decreases in death rates, whooping-cough has advanced from second place to first place among communicable diseases as a death-dealing among infants.

In the age group one to four, whooping-cough remains in third place among communicable diseases in all the period study, but falls from a high point of 51.5, with 435 deaths in 1909-1914 to 17.7 and a total of 305 deaths in 1930-1934. The largest number of deaths from this disease is in the period 1925-29, when 510 deaths from whooping-cough occur. The population of the group has increased enough, however, to keep the rate at 34.0 per 100,000 population.

(To be continued)

TWENTY-FIVE YEARS AGO[†]

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. IX, No. 5, May, 1911

From Some Editorial Notes:

Squirrel Eradication.—Dr. Rupert Blue, who, for so long a time has been giving most efficient service in squirrel eradication, is fast reaping the benefits of the general campaign which he began last fall toward enforcing the law of March 13, 1909, entitled "An Act for the Extermination of Rodents." The public has been thoroughly informed through the press of the State that this Act would be strictly enforced, and within the past month five Boards of Supervisors in different counties have appropriated money to pay for local inspectors, printing, and the other expenses which will be accrued in putting this law into effect. . . .

* * *

Product Patents.—The old question of whether a manufacturer or discoverer should have the right to patent his chemical, newly invented and of therapeutic value, has received a good deal of discussion during recent years.

* * *

Science in Pharmaceutics. — Probably very few practicing physicians realize that most of the larger manufacturers spend very large sums of money upon what, in many cases, is pure and profitless scientific investigation. . . .

* * *

The Forty-First Annual Meeting.—On account of the fact that some of the reports were received only at the time of the meeting it will not be possible to give a full account of the recent annual meeting of the State Society in this issue of the *Journal.* The minutes, reports, etc., will appear in the June number. The officers elected on Wednesday evening were:

President, Dr. Thomas W. Huntington; first vice-president, Dr. C. S. Stoddard of Santa Barbara; second vice-president, Dr. J. R. Walker of Fresno; secretary, Dr. Philip Mills Jones. . . .

From an article on "Tuberculous Ulceration of the Rectum" by W. H. Kiger, M. D., Los Angeles.

In this great fight against the "white plague," it must not be forgotten that other parts of the human anatomy than the lungs are prone to be attacked and may be destroyed; and, too, when no remedy save the knife can or will effect a cure. . . .

From an article on "A Simple Tonsil Dissector" by Percy Sumner, M. D., San Francisco.

Nothing original is claimed for the instrument presented—it is simply an adaptation from other instruments, making, I believe, an excellent instrument for the removal of the tonsils. . . .

From an article on "Medical Notes Taken in South America" by Douglass W. Montgomery, M. D., San Francisco.

While on our way to South America the captain of the steamer remarked that we would see, south of the equator, a world very much alive, and we did. The medical profession in Buenos Aires partakes of this activity. . . .

Department of Pathology, University of California.

The advent of Frederick P. Gay, formerly connected with the Harvard Medical School, as professor of pa-

(Continued in Front Advertising Section, Page 17)

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA[†]

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"The Supreme Court today refused to entertain the plea of the United States Naturopathic Association, Ltd., that it issue a writ of mandamus to compel the three-judge federal court to entertain its suit against the California State Board of Chiropractic Examiners and others. The naturopathic group asserted that the Chiropractic Examiners, the California Board of Medical Examiners, the Palmer School of Chiropractic of Los Angeles and others associated with them, sought to deprive the Naturopathic League members of the right to practice their profession." (U. S. Press Dispatch from Washington, D. C., printed in the Santa Monica *Outlook,* March 16, 1936.)

"The tenth Federal Circuit Court of Appeals today upheld the revocation of the medical license of Dr. John R. Brinkley, former Milford, Kansas, specialist. The case has been in the courts for more than four years. Medical Board action barring him occurred nearly six years ago. Doctor Brinkley, who once was defeated as a candidate for governor of Kansas, was accused before the Medical Board of 'fraud, immorality, and unprofessional conduct.' Specifically, it was charged he used animal glands, transplanting them to human beings. The physician filed suit after the Medical Board revoked his license and the case was finally carried to the Circuit Court." (Associated Press Dispatch, dated Denver, April 7, and printed in the San Francisco *Examiner,* April 8, 1934.)

"Major Joseph A. Manning has had many close calls and been in plenty of scrapes during thirty-seven years of government and police work. . . . In 1899, at nineteen, Major Manning left his home town, Bardstown, Kentucky—site of Stephen Foster's 'My Old Kentucky Home'—and sailed from San Francisco with the Army to help quell the Philippine insurrection. The outbreak subdued, Major Manning served in the Manila police till 1917, when he took charge of the District of Columbia unit of the Army's military intelligence detail in the World War. Since 1920 he has been with the Narcotics Bureau in all parts of the United States and its possessions. 'International control of the dope traffic is the only solution,' he declared. 'The work of the League of Nations has already accomplished much. There is far less dope in this country than ten years ago.' Kindly and jovial, Major Manning does not 'go much for probation.' But he believes the way to handle dope addicts is to send them to the brand-new federal health farm-prison at Lexington, Kentucky. . . . He replaced Harry D. Smith, who was moved to Denver, Major Manning's former post." (San Francisco *News,* April 17, 1936.)

"Dr. Samuel A. Twain, registered physician and operator of a clinic at 1799 University Avenue, Berkeley, today pleaded not guilty to two charges of possession of narcotics and one count of conspiracy to violate the State Poison Act, at his arraignment before Superior Judge Lincoln S. Church. His court appearance was the result of the filing of an amended information, containing the three charges. Trial date was set for April 27 by the court. . . . His arrest followed an investigation of the issuance of prescriptions of narcotics by several druggists after they were allegedly signed by Doctor Twain." (Oakland *Tribune,* March 25, 1936.)

"P. Haskell Knowles, chiropractor and herbalist, operating the American Herb Company in the Porter Building here under the name of 'Dr. Haskell,' was arrested

(Continued in Front Advertising Section, Page 18)

[†] This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

[†] The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

for a CONVENIENT *Intravenous Technique*~

BAXTER'S SOLUTIONS IN VACOLITERS

FOR CONVENIENCE in the administration of parenteral solutions, the Vacoliter is unexcelled. Baxter, ever mindful of the demand for simplicity, designed the Vacoliter with features that distinguish it as a model of convenience in solution administration.

To point out one feature, the aluminum disc forming part of the Vacoliter closure is clearly embossed with the name of the solution. The disc permanently identifies each solution until opened for use, even with the paper label removed. With the Vacoliter, possibility of error in choosing the prescribed solution is remote.

The soft metal tear-off seal holding the identification disc and sealing the Vacoliter is easily and quickly removed — a welcome change from the stubborn screw-cap. Since the seal cannot be replaced, it is hardly possible to use by mistake a previously opened Vacoliter.

The Vacoliter stopper is securely locked in place, and cannot be dislodged during administration, nor can the glass connection to the tube and needle set come out accidentally.

And to eliminate the annoyance of loose hangers or slings, the Vacoliter is now supplied with suspending bail attached.

Each Vacoliter contains sufficient excess solution to rinse the tubing assembly and leave the full designated volume for injection. Rate of flow is estimated at a glance with the Vacodrip — a glass sight gauge permitting the drops of solution to be counted. For measurement of the total dose, a scale, molded into the Vacoliter, gives the number of cubic centimeters administered.

To complete the convenience of the Vacoliter, Baxter offers Sterile Tube and Needle Sets. With a Vacoliter, a set forms a complete administration unit, ready for use. Each set contains, in sterile condition, a Vacodrip, pure gum tubing, adjustable clamp, needle adapter, and needle. Four sets are offered: No. 1 for intravenous injection; No. 2 for single needle hypodermoclysis; No. 3 for double needle hypodermoclysis; and No. 4 for continuous venoclysis with a cannula. Their cost is moderate.

With such distinctive factors of convenience added to safety and economy, it is only natural that Baxter's Solutions maintain their leadership in the field of intravenous therapy.

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MEDICAL DIRECTORS, PASADENA, CALIFORNIA

Occupational Diseases.—The law making obligatory the declaration of occupational diseases dates from 1919. But it applied only to certain of the most important ailments. A decree of October 15, 1935, increased the number of those diseases, and they are numerous. Here is the list: first, every disease caused by lead, its alloys and combinations; mercury, arsenic, phosphorus, nickel, fluorin and allied substances; carbon sulfid; chromic acid and chromates; manganese dioxid and pyrolusite; zinc; halogenic derivatives of the carbohydrates of the greasy order (série grasse); benzin and homologous liquids, trinitrophenol, chloroform, and the like; irritant gas and vapors of any kind; cellulose paints and varnishes; alkali and caustic bases; tar, pitch, mineral oils; opium; emetin and quinin alkaloids. To the list are added physical agents such as short-wave radiations, radium, and sudden variations of pressure; some irritant foreign timber, and biologic agents, such as bacteria and ancylostoma. The enumeration covers also any product responsible for dermatoses; the powders, either siliceous or ferric, and the dust of wool; every repeated trauma causing inflammation of serous bursae or ligaments or of chronic arthritis; every repeated noise that might cause deafness, and every cause of conjunctivitis or even nystagmus.

The difference between the former law for the protection of workers against occupational hazards is that the law formerly related only to emergencies the cause of which was sudden and unexpected, whereas the worker is now guaranteed against every risk that can be traced to his occupation. He is now entitled to receive half his salary, and a pension if partial or total disability occurs; his family is indemnified in case of death, and he can be treated free by the doctor of his choice, who is paid by the employer. The only great risk of diseases not covered by the law is tuberculosis, unless it is the consequence of some traumatism or former contamination. But in this case the worker is protected by the assurances sociales,

(Continued on Page 37)

"Past Regrets and Future Fears"

In addition to difficulty in putting away the cares and worries of "dead yesterday" and "unborn tomorrow" some of your sleepless patients have the additional hurdle of fear. Fear—engendered by recollection of other sleepless nights—that sleep, so much needed, will again elude them; fear that continued loss of sleep will break down health.

Insomnia, whatever its cause, may easily become chronic, and establishment of normal sleep habits frequently requires temporary use of a hypnotic.

Ortal Sodium is effective—one five-grain capsule will usually induce quiet, restful sleep (a three-grain capsule is often sufficient). Its effect is not unduly prolonged; the patient is usually alert and refreshed the following morning.

Ortal Sodium (sodium hexyl-ethyl barbiturate) is supplied in capsules of 3/4, 3, and 5 grains, in bottles of 25, 100, and 500.

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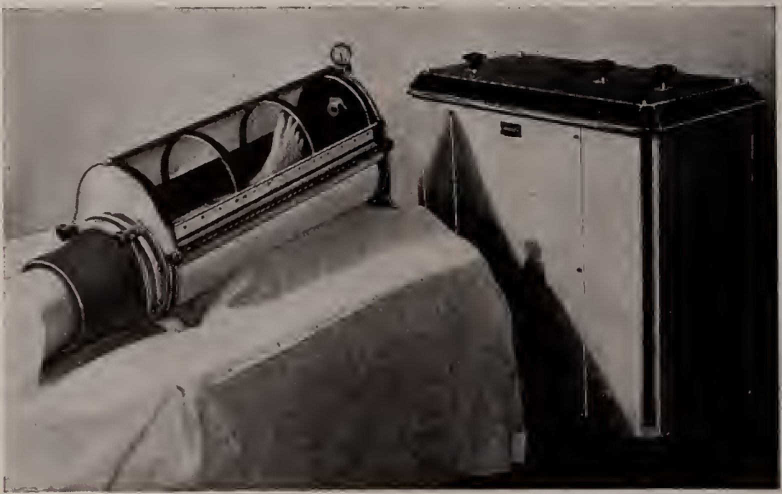

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2. Motor driven piston type pump with crankshaft action.
3. Cams are furnished for either the Landis technique (Cam 1) or for pressure and suction periods of the type described by Herrmann (Cam 2).
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5. Improved type of pressure chamber (boot) consisting of aluminum base and frame with non-breakable window of cellulose acetate composition. Quick attachment for cuffs. Length of boot, 28 inches.
6. Three sizes of special molded rubber cuffs are furnished with each boot—comfortable to patient with minimum constriction.
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8. Precise, rugged construction throughout to insure an effective technique with long and continuous service.

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BALTIMORE, MARYLAND

(Continued from Page 34)

which pay during three years the expenses of sanatorium or special surgery and aid the family. Apropos of tuberculosis, another recent decree includes the suppression of the 100 per cent bonus to the pensioned for tuberculosis who would refuse to entrust their children to the care of special organizations. Too often, as a matter of fact, they kept with them their babies, disregarding the risks of contamination. On the other hand, the pensioned for tuberculosis are now bound to give evidence, every three months, that they have received regular treatment.—*Paris Correspondent, Journal of the American Medical Association.*

Smooth Olive Oil Racketeers Foiled by Federal Food Men.—It was a good racket while it lasted—the "olive oil" racket with cheap tea seed oil substituted for the more expensive olive oil. But a federal chemist has at last found a way to identify the tea seed oil, and the Food and Drug Administration has started legal action to confiscate thousands of gallons of the adulterated oil. The salad oil racketeers will now have to abandon tea seed oil as a source of illegitimate profits just as in the past they have had to abandon cottonseed oil, peanut oil, sesame oil, sunflower seed oil, and others as adulterants of olive oil.

It is a long story with the racketeers shifting from one cheat to another trying to keep ahead of the Government and the Government chemists working in their laboratories to devise methods of exposing the cheats, methods so conclusive that they would stand up in court and cause conviction of the cheaters. Time and again the laboratory men have caught up and the test tube has exposed one variety of adulteration, forcing the racketters to a new dodge.

For some time the Food and Drug officials have been suspecting the substitution of tea seed oil in "olive oil," but they could take no action against suspected stocks, because they could not go into court and prove the adul-

(Continued on Page 40)

Robinson

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Lack of normal facial, chest and mental development are a few of the results.

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This most comfortable, and least troublesome dressing for burns may be depended upon to:

1. Relieve pain promptly.
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5. Promote prompt healing.
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Anti-Pyrexol is available through surgical supply houses and drug jobbers in 2-oz. tubes, 1-lb., 5-lb., 10-lb. tins. For technical information address Mona E. Bettin (M. D.), Pathological Laboratories, Roosevelt Building, Los Angeles, or:

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ANNOUNCEMENT

As of April 1, 1936, we are discontinuing all lay advertising and thereafter shall confine our promotional activities exclusively to strictly ethical procedure.

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J. S. Zinsser
President

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Because S.M.A. resembles human breast milk in so many* respects, S.M.A. may be used interchangeably with breast milk, either for a supplementary feeding at certain hours, or as a complementary feeding each time after the infant has drained the breasts, or where breast milk is lacking entirely.

S. M. A. is made especially for infant feeding. It is an adaptation to breast milk, designed solely for infant feeding, instead of for use in coffee and in miscellaneous other ways.

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* S. M. A. is a food for infants — derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is *essentially similar to human milk* in percentages of protein, fat, carbohydrates and ash, in chemical constants of the fat and in physical properties.

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(Continued from Page 37)

teration which the racketeer would deny. Tea seed oil resembles olive oil closely in many respects, and answers to all of the recognized tests for olive oil. To make a case stick, they needed just one reliable test in which tea seed oil would react in a way distinclty different from olive oil. The test just developed is that kind of a test.

Now sure of their grounds, the Food and Drug Administration has begun suit for confiscation of the adulterated oils now on the market, most of it labeled, "pure olive oil," but which is, in fact, heavily adulterated with the cheaper tea seed oil.

Tea seed oil is a commodity virtually unknown to most buyers of salad oils. It is pressed from the tea nut, or seed, produced by a plant closely related to that from which leaves for beverage tea are harvested. The major use of the oil, which is imported from the Orient, is in paint and textile industries. It may be used as a table oil when refined, and is not unwholesome. The Administration would have no ground for action against tea seed oil sold as tea seed oil. But it should be sold for what it is. Use of the tea seed oil as an adulterant in olive oil is clearly a violation of the Food and Drugs Act. . . .

Medicine Through the Ages.—The Public Library of Victoria, in conjunction with the British Medical Association, is holding in Melbourne an exhibition of rare medical books extending from 1700 B. C. to the present day.

Ancient medicine is represented by a facsimile of the Edwin Smith surgical papyrus, a manuscript written in Assyria in cuneiform characters, as well as the Ebers medical papyrus written in Egypt about 1500 B. C.

Hebrew medical hygiene of 500 B. C. from the religious point of view is one of the main themes of the Book of Leviticus. This is represented in the collection by a copy of the extremely rare Coverdale and Tyndale English Bible, printed in Antwerp in 1537.

Greek and Roman medicine from 400 to 10 B. C. is covered by rare editions of the works of Hippocrates,

(Continued on Page 44)

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CANNED FOODS AND THE PUBLIC HEALTH

IV. BOTULISM

• Several of our readers have inquired as to the possibility of botulism resulting from the consumption of commercially canned foods. The canning industry is proud of the part it has played in the eradication from its products of this deadly type of food intoxication. We are glad to devote this space to a discussion of this important topic.

During recent years, the daily press periodically carries reports relating how one or more members of a family, or of a group of persons, were stricken after a meal, usually with fatal results. Sometimes these accounts describe how an "anti-toxin" was rushed to the scene—an indication that botulism was involved. These press reports often include the statement that a "canned food" was incriminated as the cause of the illness.

We wish to emphasize that as far as the records go, these outbreaks without exception are not attributed to foods commercially canned in this country. In practically every instance, it was found that the foods —usually of a non-acid or semi-acid nature —had been preserved at home by the use of inadequate heat sterilization processes (1). These press reports, by not stating correctly the type of food involved, have done much to cast unwarranted suspicion on commercially canned foods as possible causes of botulism.

Botulism, or acute toxemia due to clostridium botulinum, is by no means a new affliction. As early as 1802—ninety-five years before van Ermengem discovered the true cause of the intoxication—warnings were issued against botulism. However, not until severe outbreaks occurred in this country some fifteen years ago, was it realized that cognizance should be taken of the fact that foods canned by the methods used in those days could become contaminated with the toxin of this organism. This fact having been realized, the canning industry took immediate steps to prevent such contamination of their products.

Research was inaugurated and has been continued to which the industry has contributed not only financially, but also by the studies of scientists associated directly with the canning industry (2). The end result of these researches was the development of scientific methods of determination of heat sterilization treatments, or heat processes as they are known to the industry, which would be adequate to insure the safety of canned foods from the standpoint of botulism (3).

The effectiveness of the measures generally adopted by the canning industry of the United States is evidenced by the fact that no case of botulism attributable to an American commercially canned food has occurred during the past ten years (1a). Foods packed in commercial canneries are heat processed not only to insure protection from bacterial spoilage causing merely the loss of the food, but to render them safe from the standpoint of botulism, as well. In fact, a sterilizing process sufficient to insure the destruction of the most heat resistant strain of Cl. botulinum ever isolated is considered the minimum requirement of heat treatment of commercially canned foods. The National Canners Association has issued lists of scientifically determined processes for non-acid canned foods with which canners comply (4).

Such are the facts. The American canning industry offers its products to the consuming public for what they are; namely, wholesome and nutritious foods.

AMERICAN CAN COMPANY

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1. a) *1935* Amer. J. Public Health, 25, 301
   b) *1935* J. Amer. Diet. Assn. 11, 18
2. *1936* J. Bacteriology 31, No. 1 P. 71
   1923 Amer. J. Public Health, 13, 108
   1922 J. Inf. Dis. 31, 650
3. *1925* Natl. Res. Council Bulletin, 7, No. 37
4. *1931* N.C. A. Bulletin 26-L, Revised

This is the twelfth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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(Continued from Page 40)

Aristotle, Lucretius and Celsus. From the second century the works of Galen were for hundreds of years the supreme authority on medical subjects; a well-used student's edition of 1548 is shown.

Arabian medicine is represented by a manuscript copy of the Koran and the works of Avicenna. Several of the big encyclopedic works of medieval writers are on view, including those of Vincent of Beauvais and of Bartholomew the Englishman, both in rare fifteenth century editions. For the qualifications of a "Doctor of Phisyke" reference may be made to the extraordinary rare first edition of Chaucer, published in London in 1532.

Two epoch-making works of 1543 are on view—both, however, in later editions—the "Astronomia" of Copernicus and the "Fabrica" of Vesalius, the founder of modern scientific anatomy. In 1600 appeared the first great scientific book published in England, the "De magnete" of William Gilbert, physician to Queen Elizabeth.

Rare books of the seventeenth century include Harvey's book on the movement of the heart and blood, Bacon's "Advancement of Learning," and the first edition of Galileo's "Dialogues," published in 1632 and suppressed by the Inquisition. Among other interesting books of the same century is one by John Hall, the son-in-law of Shakespeare, describing how he cured his wife's ailments, and the "Bills of Mortality," published in London during the great plague of 1665.—*Australian Letter, Journal of the American Medical Association.*

Social Security Board Approves Public Assistance Plans of Ohio, Massachusetts, Arkansas, Vermont, Washington, and Oklahoma.—The Social Security Board on March 31, 1936, approved public assistance plans of six states: the Arkansas State plans for aid to the needy aged, the blind and to dependent children; the Vermont State plans for aid to the blind and dependent children; the Washington State plan for aid to the blind;

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the Ohio State plan for aid to the needy aged, the Massachusetts State plan for aid to the needy aged; and the Oklahoma State plans for aid to the needy aged and to dependent children.

As a result of the Board's action these states will receive allotments of funds from the Federal Government to match their own expenditures for assistance to the needy aged, dependent children, and the blind. The federal grant will be as much as the states themselves spend in the case of assistance to aged persons and aid to the blind, up to a combined total of $30 a month per person, plus 5 per cent of the amount of the federal grant to help cover the states' administrative expenses. For aid to dependent children the federal grant to states with approved plans will be one dollar for every two dollars the state spends, up to a combined total of $18 per month for the first dependent child in any one family and $12 per month for each additional child in the family.

Today's approval by the Social Security Board brings the number of states with approved public assistance plans to twenty-seven in the case of aid to the needy aged, eighteen for aid to the blind, and seventeen for aid to dependent children. Almost 500,000 individuals are affected by these plans; 390,000 aged men and women; 86,187 dependent children; and 17,543 needy blind.

The public assistance plans approved today are expected to provide aid to 91,167 aged persons in Ohio; 25,600 aged persons in Massachusetts; 11,000 aged, 300 blind persons, and 550 dependent children in Arkansas; 175 blind persons and 577 dependent children in Vermont; 700 blind persons in Washington.

In Washington the estimated average monthly payment to the blind is $33.30. Ohio's plans indicate monthly payments to the needy aged at an average rate of $15.23 per person, and Massachusetts' at an average rate of $25.55 per person. Payments to the blind in Vermont are estimated at an average rate of $11.50 per month to each individual and payments to dependent children at $9 per month. Arkansas' plans indicate an average monthly pay-

(Continued on Next Page)

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(Continued from Preceding Page)

ment of $10 to each aged and blind person and each dependent child eligible for assistance under the state's plan.

To be approved by the Social Security Board, under the terms of the Social Security Act, a state public assistance plan must provide for cash payments to needy aged persons, to dependent children living with relatives, or to the needy blind in all parts of the state. A single state agency must administer the plan or supervise its administration, if it is directly administered by the counties. This state agency must grant the opportunity for an appeal from the decision of any county denying assistance to an applicant.

Anti-Fat Cures.—No drugs or mixtures of drugs known to the medical profession at the present time can be offered for the promiscuous use of the public in reducing weight without introducing an element of danger, warns Dr. F. J. Cullen of the Food, Drug, and Insecticide Administration, United States Department of Agriculture:

"Promoters of so-called obesity remedies and fat-reducing cures," he says, "are attempting to influence fat persons to spend money for worthless or dangerous preparations. The advertisements appeal to the vanity of persons who wish to regain slim, graceful figures and also to the business necessities of those who become so fat that they can no longer do their work efficiently. The principal appeal of most of the promotion claims is that no dieting is necessary; the medicine is to do it all and the advertiser says the patient can eat all he wants and as often as he wishes, which is a strong inducement to most stout persons.

"These preparations frequently contain thyroid and laxatives. The promiscuous use of thyroid may prove very harmful unless given under the advice of a physician personally familiar with the subject's physical condition. The department has on record an instance where death has followed an overdose of a preparation containing thyroid. Some preparations contain poke root (phytolacca),

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a poisonous drug, and others, analysis shows, contain nothing that could possibly have the slightest effect on reducing flesh.

"No other class of preparation exploited to humbug the people has a wider sale than these so-called fat reducers, and nearly all the preparations are absolutely worthless."

Mankind has always been gullible. He has always sought the short cuts to obtain his wants; consequently he has been a prey to the quack and the patent-medicine vendor. Reducing cannot be accomplished without injury unless it is done under the guidance of a skillful physician. Loss of flesh is by no means a blessing if accomplished by loss of health, energy or strength. Fortunately the fad of slimness is over. Lean figures have ceased to be in style. This is a boon to the health of our nation and a blessing for the women of the world.

Compulsory Graduate Courses for Rumanian Physicians.—The ministry of public health has prepared the draft of a new law, according to which, beginning in the spring of 1936, graduate study will be compulsory for all physicians living in cities of 50,000 inhabitants and over. The courses will be held in the public hospitals, and the chief subject will be internal medicine. Only practical courses will be given, and they will last from three to four weeks and will have to be attended once in every five years. The organization of the graduate courses will be the task of the chambers of physicians. Locum tenentes for country physicians attending the graduate courses will be provided by the chambers, and the salaries due to them will be contributed by the state.—*Rumanian Letter, Journal of the American Medical Association.*

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Evaporated milk formulas are indicated for newborns with limited digestive capacities. They may be used to advantage in considerably higher concentrations than whole milk for premature, feeble and debilitated infants.

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Boiled Water	12 ounces
Karo	2 tablespoons
Powdered Milk	5 tablespoons
Boiled Water	20 ounces
Karo	2 tablespoons
Lactic Acid Milk	12 ounces
Boiled Water	8 ounces
Karo	2 tablespoons

REFERENCES:

Kugelmass, Clinical Nutrition in Infancy and Childhood, Lippincott.
Marriott, Infant Nutrition, Mosby.
McLean & Fales, Scientific Feeding in Infancy, Lea & Febiger.

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Maternal Mortality.—The Fellowship of Medicine arranged a debate on the motion "That the Present Rate of Maternal Mortality Is a Discredit to Modern Obstetrics." Leading obstetricians took part. Prof. J. M. Munro Kerr said that the mortality was in no way mysterious and was due to the fact that the means at hand was not employed to prevent it. The mortality at two maternity hospitals in London, with institutional and domiciliary services, was as low as 0.7 and 1 per thousand, which was five or six times lower than the general rate for England and Wales. The death rate from eclampsia was the criterion for assessing the quality of antepartum care. In the country generally there was no evidence of lowering of this rate, while in the services mentioned death from eclampsia rarely occurred. The only solution in densely populated areas was that the family physician should give up maternity work and leave it to municipal midwives and specialists.

Prof. G. I. Strachan said that since 1906 the maternal mortality had risen from 3.74 to 4.6 per thousand births. But the Netherlands was the only country of any account that could show a lower mortality than England and Wales. He gave high American figures: 10 per thousand for the state of Georgia in 1931 and 8.1 for Louisiana in 1934. He considered that the increasing incidence of abortions, the majority of which were procured, was one of the most important causes of maternal mortality. Another was the decrease in the size of the family, which meant a higher proportion of primiparas. He deprecated unnecessary intervention in labor, but thought that there was no easy road to success in improving the mortality.

Professor Dougal said that the figure for maternal mortality in 1933 was 4.32 per thousand, which would be reduced to 3.7 if an estimated number of abortions were added—not an alarming mortality, but higher than it should be, because many deaths could have been avoided if certain conditions were fulfilled. He considered that overcrowding of the towns was, as in the United States, responsible for our high mortality. The conduct of labor should be left to the midwife, but the general practitioner was the proper person to supervise the health of the pregnant woman and to detect abnormalities. In labor he should be available for the diagnosis of abnormalities and the treatment of those with which he was competent to deal or must deal because of urgency. For others the obstetrician should be available.

Dr. Bethel Solomons, formerly master of the Rotunda Hospital, Dublin, found the present system of obstetric teaching unsatisfactory. The student was required to attend a certain number of labors, but he should be required to attend them all through and not simply at the end. No one should be allowed to practice until he had done graduate work under supervision. As long as the number of forceps interventions remained high, with the proportion of mangled and dead women and children, it could not be said that the present state of obstetrics was creditable.—*Journal of the American Medical Association.*

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Hospitals and Sanatoriums

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For Treatment of Tuberculosis
San Jose, California

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For Treatment of Tuberculosis
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Nearly Seven Hundred Thousand Benefit from Social Security Public Assistance Plans in Thirty-One States — Cost Will Be $32,033,934 During Current Quarter.—A total of 690,277 persons are expected to receive aid during the quarter ending June 30, under public-assistance plans so far approved by the Social Security Board, it was announced recently. This figure is based on estimates submitted by the states having approved plans, and therefore receiving grants-in-aid from the Social Security Board.

Included in the total number of persons to be aided are 528,694 needy aged, 18,750 needy blind, and 142,878 dependent children.

To date, the Social Security Board has approved public-assistance plans in thirty-one states and the District of Columbia. The Board has approved twenty-nine state plans for old-age assistance, eighteen state plans for aid to the blind, and seventeen state plans for aid to dependent children. The total monthly expenditure, exclusive of administrative costs, for these three forms of public assistance in all states having approved plans is estimated to be $10,509,466.05, of which $8,638,752.42 is for aid to the needy aged, $478,845.04 is for aid to the blind, and $1,391,868.59 is for aid to dependent children.

For the three months' period ending June 30, the estimated cost of public assistance in all states having approved plans including payments not matched by the Federal Government and costs of administering aid to dependent children totals $32,033,934.80. This amount includes $25,926,258.28 for aid to the aged, $1,413,765.14 for aid to the blind, and $4,693,911.38 for aid to dependent children.

Based on the states' estimates, the federal share of the above expenditures for the three months' period will be $14,536,810, of which $11,686,175 will go to the states for assistance to their needy aged, $704,707 for assistance to their needy blind, and $1,526,384 for assistance to their dependent children.

Under the terms of the Social Security Act, federal funds are granted to states having public-assistance plans which conform with the requirements of the federal act so that the states may provide more adequately for their needy dependents.

The federal allotments to the states pay half of any amount (not in excess of $30 a month to an individual) which the state grants to needy persons 65 years of age or over and to needy blind, provided these aged or blind persons are not inmates of public institutions. The Federal Government also adds five per cent to its half in making its contribution to the states.

Federal grants for aid to dependent children represent one-third of the states' administrative expenses and benefit payments under its plan for this form of assistance exclusive of amounts in excess of $18 per month for the first dependent child in a family and $12 per month for each additional child.

In addition to state plans already approved, the Social Security Board now has under consideration seven state plans for old-age assistance, three state plans for aid to the blind, and eight state plans for aid to dependent children.

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TEACHING FACULTY–ATTENDING STAFF OF COOK COUNTY HOSPITAL
Address: Registrar, 427 South Honore Street, Chicago, Ill.

California, Florida, Illinois, Montana, Colorado, New Jersey, and Hawaii have submitted plans for old-age assistance; Connecticut, Delaware, Massachusetts, Michigan, Minnesota, Rhode Island, Colorado, and New Jersey have submitted plans for aid to dependent children; and Massachusetts, Minnesota, and Colorado have submitted plans for aid to the blind.

To be approved by the Society Security Board, a state plan for any of these forms of public assistance must provide for cash payments to needy persons in all parts of the state; there must be a single state agency to administer the plan or to supervise the administration if the plan is directly administered by the counties; the state agency must have power to hear appeals from any decision denying assistance to an applicant.

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A Thirty-Four-Year Record.—The Physicians' Casualty Association of Omaha has recently published its report for "thirty-four years of uninterrupted usefulness" in which they show payments to physicians for sick and accident claims of $535,052.98—over half a million dollars. The report further shows they have a surplus fund of $1,350,000 as evidence of their financial ability to pay what they promise to sick or disabled members.

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BOOK REVIEWS

List of Books Received

BOOKS RECEIVED

Allergy of the Nose and Paranasal Sinuses. A Monograph on the Subject of Allergy as Related to Otolaryngology. By French K. Hansel, M. D., M. S., Assistant Professor of Clinical Otolaryngology, Washington University School of Medicine; Fellow of the Association for the Study of Allergy, the Association of Resident and Ex-resident Physicians of the Mayo Clinic, the American Laryngological, Rhinological and Otological Society, and the American Academy of Ophthalmology and Otolaryngology. Cloth. Pp. 820, with fifty-eight text illustrations and three color plates. Price, $10. St. Louis: The C. V. Mosby Company, 1936.

The Normal Diet and Healthful Living. By W. D. Sansum, M. D., Chief of the Staff of the Sansum Clinic and Director of Metabolic Research of the Santa Barbara Cottage Hospital, Santa Barbara, California; R. A. Hare, M. D., Member of the Staff of the Sansum Clinic, and Ruth Bowden, B. S., Dietitian of the Sansum Clinic. Cloth. Pp. 243. Price, $2. New York: The Macmillan Company. 1936.

The Balanced Diet. By Logan Clendening, M. D., Professor of Clinical Medicine, University of Kansas. Cloth. Pp. 207, illustrated. Price, $1.50. New York: D. Appleton-Century Company, 1936.

Clinical Heart Disease. By Samuel A. Levine, M. D., F. A. C. P., Assistant Professor of Medicine, Harvard Medical School; Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston; Consultant Cardiologist, Newton Hospital; Physician, New England Baptist Hospital, Boston. Cloth. Pp. 445, with 97 illustrations. Price, $5.50 net. Philadelphia: W. B. Saunders Company, 1936.

Interpretation of Laboratory Findings. By Raymond H. Goodale, M. D., Pathologist, City Hospital, Worcester, Mass.; Visiting Pathologist, Belmont and Fairlawn Hospitals, Worcester, Mass.; Harrington Memorial Hospital, Southbridge, Mass., and Baldwinville Hospital Cottages, Baldwinville, Mass.; Assistant Professor of Experimental Pathology, Boston University School of Medicine, Boston, Mass. Cloth. Pp. 170. Price, $2.25 net. Philadelphia: F. A. Davis Company, 1936.

Elements of Psychology. By Knight Dunlap, Professor of Psychology in the University of California at Los Angeles; until January, 1936, Professor of Experimental Psychology in the Johns Hopkins University. Cloth. Pp. 499, with 65 illustrations. Price, $3. St. Louis: The C. V. Mosby Company, 1936.

NEW MEDICAL BOOKS

Bailey: Emergency Surgery	$14.00
Cope: Early Diagnosis of Malignant Diseases	3.00
Cushing: From a Surgeon's Journal	5.00
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BOOK REVIEWS

The Balanced Diet. By Logan Clendening, M. D., Professor Clinical Medicine, University of Kansas. Pp. 206, illustrated. D. Appleton-Century Co.

A sensible, practical discussion of the subject. Suitable for laymen and dietitians and helpful for the practitioner. The chapter on "Fads" will aid in bringing them in disrepute W.

Allergy of the Nose and Paranasal Sinus. By French K. Hansel, M. D., B. S., Washington School of Medicine. Pp. 818. Price, $10. C. V. Mosby Company.

This is a monograph on the subject of allergy as related to otolaryngology. There is no brevity in the discussion of allergy. There are numerous references. A wealth of information, tests and interpretation and presentation of clinical symptoms. W.

Interpretation of Laboratory Findings. By Raymond H. Goodale, M. D. Cloth. Pp. 170. Price, $2.25. F. A. Davis Company.

Merely a compilation of laboratory data and some of their interpretations. Useful for the student. W.

The Normal Diet and Healthful Living. W. D. Sansum, M. D.; R. A. Hare, M. D., and Ruth Bowden, B. S. Pp. 243. Price, $2. The Macmillan Company.

Even a casual review would cause one to record approval and commendation for this clearly written dietary guide and discussion of healthful living. In as much as physicians are looked upon as advisors for healthful living, it is essential that they be able to discuss diets and food with their patients. This text will be of tremendous value in enabling them to present facts understandingly.

Thanks are due to the authors for having well aided in presenting the subject of diet and healthful living in a practical way. They show how nutritional disturbances and many common ailments can be overcome.

This presentation is recommended for professional and lay guidance. W.

(Continued on Page 14)

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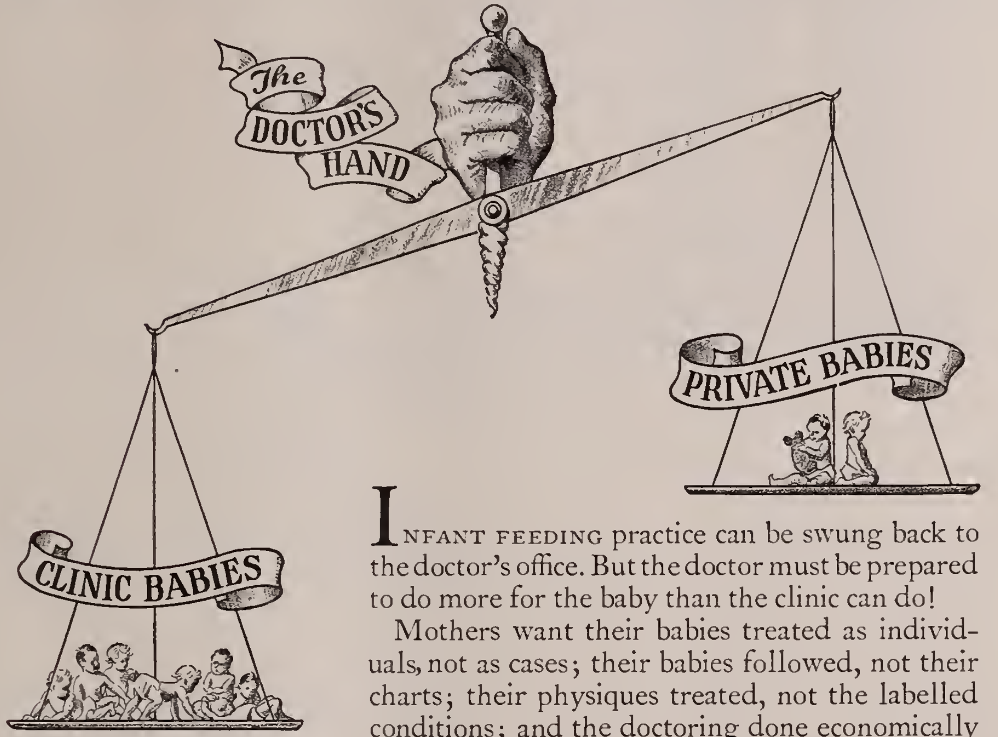

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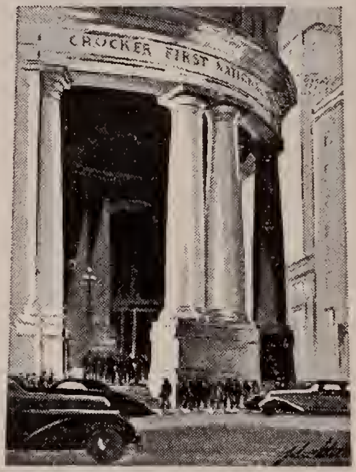

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BOOK REVIEWS

(Continued from Page 12)

Clinical Heart Disease. By Samuel A. Levine, M. D., Assistant Professor of Medicine, Harvard Medical School. Boston. Pp. 445, with 97 illustrations. Philadelphia and London: W. B. Saunders Company, 1936. Cloth, $5.50 net.

The important aspects of diagnosis, prognosis and treatment of heart disease is presented in simple form. The general practitioner will be pleased by this discussion of a subject that is of concern in daily practice. There is an excellent discussion of electro-cardiography. An impression is made by the clear opinions on prognosis and detailed outline of treatment advice. This text should be most helpful to every physician. W.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 544)

Senate after being introduced by Senator Avey and was known as Senate Bill No. 261. . . .

* * *

Nature of the Changes.—In the Hurd Bill, No. 875, the only change from things as they were is that the Governor appoints without suggestions, as already stated. In the Avey Bill, No. 261, the changes are more extensive and more radical. The first one provides that the board "May issue a certificate to any person who has practiced a special branch of medicine and surgery, at the time this act goes into effect, for a period of not less than thirty-five years, fifteen years of which time shall have been within the State of California." This was introduced in order to allow a quack cancer specialist named Bohanon, of Oakland, to continue to follow his nefarious calling. It is ridiculously absurd on the face of it and in all human probability will be thrown out of court as soon as it gets there. . . .

Summer Study in Medicine.—Flight from the importunate demands of medical practice for a peaceful season of renewed acquaintance with long-neglected scientific methods and introduction to the more recent attainments of the medical profession, is the secret of professional youth and is the means of maintaining high scientific standards. . . .

* * *

Medical Defense.—Considerable space has been devoted to the case of *Christie* vs. *Smith*, in which case Dr. Rae Smith of Los Angeles was sued by Christie and successfully defended by the State Medical Society, owing to the fact that an insurance company took advantage of a letter written by Doctor Smith to use for extensive advertising purposes. The letter was printed in the editorial pages of the last issue. From the tone of the letter a number of members might think that the burden of the defense of Doctor Smith had rested with the insurance company and that the State Society medical defense was not satisfactory. The reverse was the case. The State Society defended the case entirely alone, and every bit of credit that may be due anyone for the work is due the State Society. . . .

* * *

The Lane Lectures.—The course of Lane Lectures arranged for this year will be given by Dr. Ernest Fuchs, professor of ophthalmology at the University of Vienna, during the week beginning August 21. . . .

* * *

For Sale and Locations.—Remember that the State Society office has a regular department of locations, exchanges, places wanted, and places to be filled. There are always a number of younger men who are looking for openings, temporary or permanent, and there are always some men who have practiced for a number of years in some country place, who own their homes and have good practices, but who, for one reason or another, desire to move to another location. . . .

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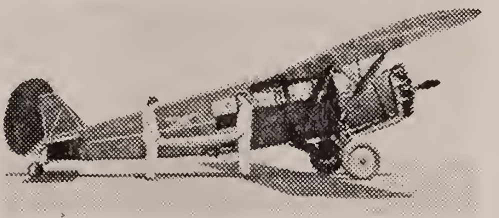

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Dr. John C. King.—Doctor King, the president of the Medical Society of the State of California, who presided at the forty-first annual session at Santa Barbara in 1911, was born at Pittsburgh, Pennsylvania, in 1853. . . . Doctor King has probably sought a place as little as any man ever did, yet has received from the medical profession of this state the recognition which his sterling qualities and upright character unconsciously compelled. . . .

Address of the President, John C. King, M.D., Banning.—Gentlemen of the Society: The constitution of this society imposes upon your president the duty of delivering an address and, by implication, imposes upon you the burden of listening to it. We cannot well avoid either the duty or the burden, but we may lighten them for each other a tiny bit by the exchange of a little mutual sympathy. My address will not be dignified by a title. I will simply try to talk for a few moments about the Society itself, its needs and some things it does not need. . . . Now, is our Society ruled by a majority or is it run by a clique? Please remember that our governing house is a delegated body, that its personnel changes from year to year. If you think a clique is in control, all you have to do is to get out and work in the primaries, elect the delegates you want. Some men remain in office year after year; possibly some men ought to, because it would be difficult for the Society to replace the work they are doing. But no man can ever get in or keep in unless the delegates want him. . . .

Our House of Delegates will receive a report from its Committee on Contract Practice. It would be out of place for me to anticipate the nature of this report or to attempt to influence the disposal of it. But I may be permitted to emphasize its unusual importance. From England, Germany, Austria, and Canada come bitter complaints of the devastating effects of this evil upon the finances of our profession, and all the while the unparalleled progress of the medical sciences demands increased outlay on the part of the doctor who pretends to keep abreast of the times. . . .

Once again, the American Medical Association meets on the Coast, meets in Los Angeles. In a very large sense the Association will not be the guest of the Committee on Arrangements nor of the city or county of Los Angeles, but of the State of California. It behooves every member of this society to be present at that meeting; and not that alone, but when present to assume the responsibilities of hostship. . . .

In conclusion, allow me to place special stress upon the social life of this society. Too many of us regard our colleagues as rivals. Competition is keen, monetary de-

(Continued on Page 17)

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TWENTY-FIVE YEARS AGO

(Continued from Page 15)

mands are pressing, and the pride of reputation stings when touched. We are apt to magnify our own success and the other fellow's failure. . . . The corroding effects of professional jealousy hamper us in many ways. In some localities the disease seems especially virulent, in others it is more or less under control. I do not know any better remedy for it than close acquaintance. The better we know our fellow practitioner the better fellow he seems to be, as a rule. A quiet talk with a man we do not like very well often helps us to like him better, does both of us more good than to listen to his erudite paper. . . . Let us get better acquainted, that we may like each other better and, in particular, let the one who has attended a meeting or two welcome the one who has never been here before, so that he may want to come again. What we most need is a feeling of solidarity.

Report of the Council.—To the President and Members of the House of Delegates of the Medical Society of the State of California: Your Council has the honor to report to you the various matters concerning the business of the Society which came before it during the year 1910.

All of the books and accounts of the secretary and of the office of the Society were submitted to a firm of chartered accountants and a mimeograph copy of their statement of the condition of the Society for the year ending December 31, 1910, has been handed to you. This statement shows a very interesting condition of affairs. All of the notes, amounting to $2,000, together with the interest accrued, were paid in December, 1910, with the exception of one note which was overlooked by the secretary in making out the checks.

Including the payment of these notes and the interest thereon and of about $250, which represents legal expense in defending the property right of the Society in the register and directory, and including the unusually heavy expenses of the last meeting, the year's work shows an excess of receipts over disbursements of $228.14. The auditors allowed for depreciation of office furniture, fixtures, etc., $300, and yet they show an excess of assets over liabilities of $1,816.97. We again desire to call your attention to the fact that not one dollar has been paid out until the payment has been approved by the Auditing Committee of the Council. . . .

Medical Defense: Beginning with July 1, 1909, the Society undertook to defend all of its members should they be sued for malpractice for any alleged cause which occurred during the time when they were in good standing with the Society. We have now to report to you that a large number of threatened suits have been averted and that six suits have been filed, all of which suits are being cared for by the attorneys for the Society. One of them, *Christie* vs. *Smith*, was tried in Los Angeles, the trial lasting nine days, resulting in a verdict for the defendant. Many features connected with this case have attracted more or less attention, and it is with considerable satisfaction that the Council reports the thorough protection of Doctor Smith by our medical defense. . . .

Report of the Board of Medical Examiners.—Since the last report was made to this society, April 19, 1910, the State Board of Medical Examiners has given four examinations. . . .

By an act of the Legislature of 1907, 885 osteopaths received a license to practice; since that time ninety-four osteopaths have been licensed after examination by the Board. Of this total number, 76 per cent are located in Southern California.

Three bills came before the Legislature during the past session which were of great interest to the Board. . .

The failure of these three bills emphasizes the fact that the long task of standardizing and legalizing the practice of medicine is discouraged rather than encouraged by the

(Continued on Next Page)

TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

people at large. The demand for physicians who shall be examined and licensed by the state, comes not from the public seeking protection, but from public-spirited physicians. . . . .

Referring Again to the Matter of Malpractice Defense by the Medical Society of the State of California and to a Certain Circular Letter Sent Out by a Private Malpractice Company.

. . . The secretary-editor of the Los Angeles County Medical Association had the honor at San Jose, two years ago, of introducing the resolution that brought malpractice defense by the State Society into being; and as a member of the Board of Councilors of the Medical Society of the State of California, he knows that the men of that Board intend to raise all the money necessary to make malpractice defense by the State Medical Society absolutely efficient.

The editor still believes he was justified in refusing to print in the *Bulletin* of the Los Angeles County Medical Association a statement which would give complimentary mention to a private malpractice company (case of *Christie* vs. *Smith*). The *Bulletin* of the County Medical Association is not run for profit. The secretary-editor gives his services to the Society as a labor of love. He is absolutely committed to the development of the county unit and of the State Society. . . .

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We trust this will end this unfortunate incident. In view of the misstatements in the private company's circular letter, the interests of the Society demanded that the members of this Association should know the facts as the secretary-editor understands them, and he has accordingly written the above.—G. H. K. (*Bulletin of the Los Angeles County Medical Association.*)

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 544)

licensed chiropractor, pleaded guilty to a charge of using the term "physician and surgeon" and also using the prefix "Dr." without following his name immediately with the letters "D. C." or the word "Chiropractor." He was sentenced to pay a fine of $100 or serve twenty days in the city jail, sentence suspended on condition that he immediately change his sign to comply with the law. It is alleged that he had a sign on his office reading "Dr. James J. Connor, Chiropractic Physician and Surgeon." It is stated that he claimed that he practiced "bloodless surgery" and is said to have given our investigator a booklet entitled "Painless and Bloodless Surgery" by the Kolar Health Clinic, 320 North Market Street, Wichita, Kansas.

"A crazed patient, wielding a butcher knife, inflicted dangerous wounds on a doctor at the Marine Hospital late yesterday. Dr. Francis Rochex, staff physician, was called into the out-patient department late yesterday to treat Charles McDade, fifty-three, 1220 Folsom Street. 'Look at my back, doctor,' he said, 'I want to see if it is all right for me to go back to work.' Doctor Rochex had examined him a month ago and knew the history of the case. 'Why, you have been working,' he said. McDade turned suddenly, produced a knife which had been con-

(Continued on Page 20)

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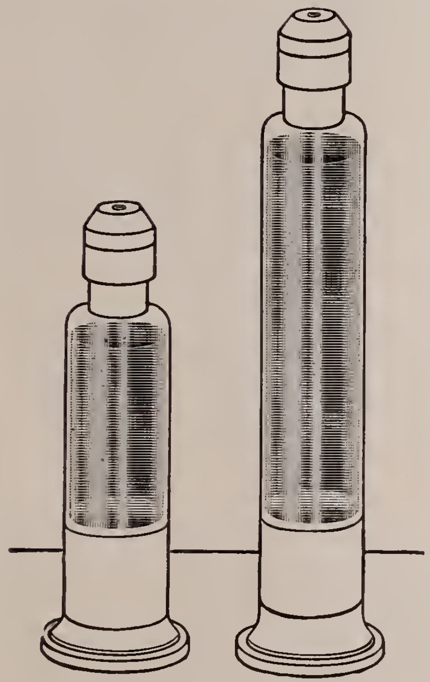

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 18)

cealed in his clothing, leaped at the doctor and stabbed him in the chest and chin. . . ." (San Francisco *Examiner*, May 8, 1936.)

"David Gustason, Los Angeles (licensed by the Osteopathic Board), appealed to the Supreme Court today to restore his California license to practice medicine and surgery. Gustason asked the court to reverse decisions of the California State Court, which approved an order against him by the California Board of Osteopathic Examiners." (Associated Press dispatch, dated Washington, D. C., May 2, and printed in the Los Angeles *Times*, May 3, 1936.)

"Gene Harrow, eighth of the nineteen men indicted two years ago in the Alameda County health insurance racket, pleaded guilty to conspiracy to commit petty theft and was sentenced to thirty days in the county jail or a fine of $400 by Superior Judge Frank M. Ogden in Oakland yesterday." (San Francisco *News*, May 1, 1936.)

"Operation of a widespread extortion, fraudulent mail order and poison medicine business, with many Sacramentans as victims, was charged yesterday by Alfred H. Baumgardt, fifty-seven, former Stockton advertising man, who was arrested near French Camp, San Joaquin County. United States Commissioner J. Quincy Brown held Baumgardt for the Federal Grand Jury under $5,000 bail after the man was brought here by Postal Inspector L. G. Gardner, whose investigation revealed Baumgardt's far-reaching activity. Gardner said that Baumgardt included among his fraudulent schemes a $15 course in advertising, which 'was not worth a thing' . . . Baumgardt also was

(Continued on Page 22)

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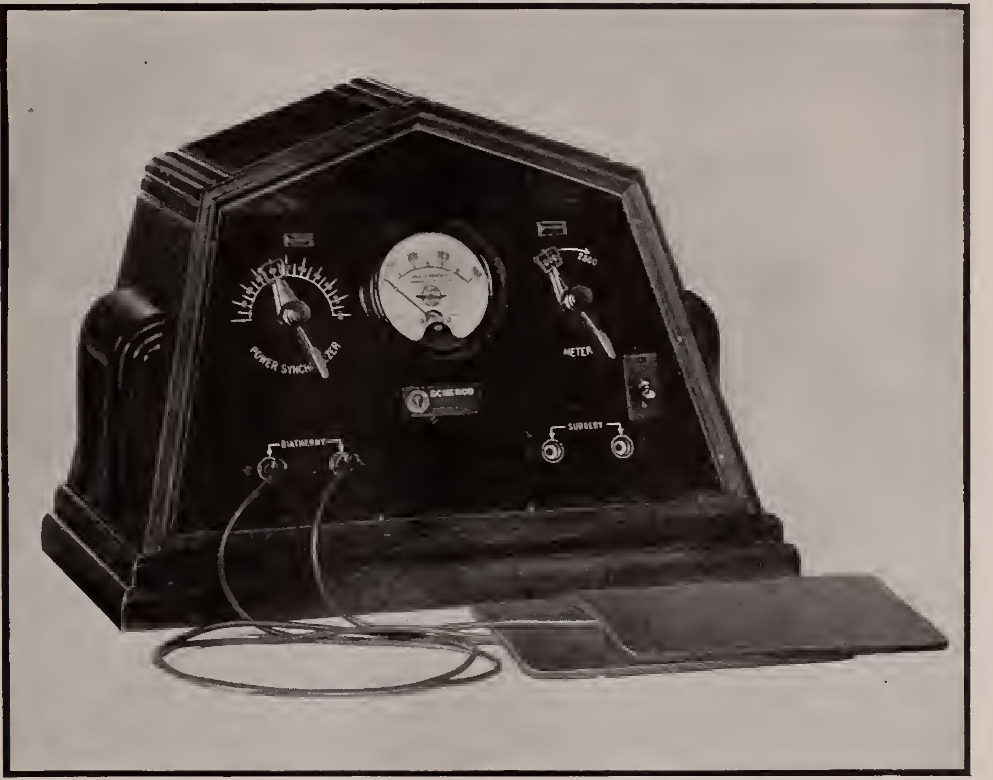

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 20)

said to have sold through the mails to barber shops and beauty parlors a special mole remover, which turned out to be poison and severely injured many of its users. Several Sacramentans were among the victims of this phase of the prisoner's activities. . . . Among the man's schemes, Gardner said, was to send unsalable articles and products through the mails and when the receivers failed to pay for these goods, to write letters threatening court action or personal injury. One of his letters, Gardner declared, threatened to burn a house in Stockton to force payment of a claim. Baumgardt has operated in several California cities, Gardner said, including Oakland, Los Angeles, Stockton, and Broderick, Yolo County. Federal authorities said that many of his victims were in eastern cities, but that data has not been filed to reveal the extent of his racket. Gardner said Baumgardt was convicted and sentenced on swindling charges in Albany, New York, and Minneapolis, Minnesota, several years ago. The man had been living in Stockton for several weeks and receiving his mail at the French Camp post office, where he also cashed money orders received for his fraudulent racket. . . . Placed in his cell in the Sacramento city jail, he was given a pencil and paper and told to write the names of the victims he remembers and to have the list ready for the officers this morning." (Sacramento *Union,* May 1, 1936.)

"Old age has come to Mr. and Mrs. F. A. Smith of Camarillo. Mr. Smith was ninety and Mrs. Smith eighty-two. These last few years had begun to tell and Mrs. Smith had been complaining about her eyesight. . . . Mr. Smith had met a man just the other day who said he could perform wonders with a person's eyes. He could restore eyesight in one simple inexpensive operation. On December 6, last year, 'Dr.' John Prince appeared at the Smith home. He was the physician Mr. Smith had made reference to. An operation, consisting of the application of several drops of liquid into Mrs. Smith's eyes, was performed. Pledging the pair to secrecy, 'Dr.' Prince took his $250 fee and left. Fifteen minutes later everything grew dark. Well, she would wait and see what was to happen. This morning she got in touch with the sheriff's office and told Deputy Sheriff Ed Hearn the whole story. Hearn later learned the San Diego police held a warrant for the arrest of one 'Dr.' John Prince and associate, J. Luck, who are wanted here for a similar offense. It is the old game called 'eye swindle.' " (Ventura *Free Press,* April 22, 1936.)

"A pair of fake eye specialists, who last February mulcted nearly $300 out of F. W. Hume, 86-year-old Escondido rancher, worked their glimmer racket a few days ago on an aged couple at Camarillo. . . ." (San Diego *Tribune,* April 16, 1936.) See Eyesight Swindle exhibit of the Board of Medical Examiners in the Hall of Progress at the San Diego Exposition.

"Use of the title 'Bloodless Surgeon' or the unqualified use of 'Doctor' in his book "Bloodless Surgery and Natural Healing,' today was denied William D. Noland, Los Angeles chiropractor, by Attorney-General U. S. Webb. Webb's ruling that the use of either title would be a violation of the Medical Practice Act or the Chiropractic Act, followed his receiving a copy of the book here. . . ." (San Francisco *Call-Bulletin,* April 28, 1936.)

"Bail for Dr. Donald Burke of Berkeley was reduced from $200 to $25 yesterday by Police Judge Oliver Youngs. The physician, arrested Tuesday night on charges of being drunk when he assertedly kept honking his automobile horn, indicated through his attorney he might forfeit the bail." (San Francisco *Examiner,* April 30, 1936.)

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The San Francisco *Examiner* of May 6, 1936, in connection with an article relating to the capture of Alvin Karpis, said to be Public Enemy No. 1, printed a photograph, under which appeared the following caption: Dr. Joseph P. Moran (right) Assisting at Operation While an Inmate of Joliet Prison." The news item related that "Joseph P. Moran, physician extraordinary to Chicago gangsters," was said to have attempted a "face-changing operation" and later was said to have been "thrown to the bottom of Lake Erie by gangsters near Toledo in 1935 because he had a weakness for drink and talk." According to the *Journal of the American Medical Association,* December 15, 1928, Joseph P. Moran, M. D., was sentenced to the Illinois penitentiary from one to ten years, following his plea of guilty to an illegal operation charge. The *Journal* of September 19, 1931, related his Illinois license had been revoked because of said conviction. The record indicates that on October 16, 1933, Dr. Joseph P. Moran's Illinois license was restored "pending his continued moral and ethical conduct" (*Journal of the American Medical Association,* February 10, 1934). The San Francisco *Examiner*, July 8, 1935, printed what purported to be a picture of Dr. Joseph B. Moran, under which appeared the following: "Age 38. Convicted of performing an illegal operation in 1928. Sent to Joliet penitentiary, Illinois. Released on parole, 1930. Taken as parole violator, 1930. Released on parole, 1931. Was licensed physician and surgeon. Wanted as member of the Karpis gang." He has been "flagged" on the records of the Board of Medical Examiners, anticipating the possibility of his attempting to secure a California license.

"Dr. George W. Woodbury of 702 Dos Robles Place, has been appointed State Inspector of the Osteopathic Examining Board, having been high man on the Civil Service list. Doctor Woodbury was formerly for several years head of the osteopathic unit of the General Hospital." (Alhambra *Post-Advocate,* April 9, 1936.)

"Ralston Kirtley, 38-year-old self-styled beauty expert, who bilked Sacramentans out of more than $1,000 through fictitious checks and loans on a letter of introduction which he tricked Reverend Clarence Kircher of the Westminster Presbyterian Church into giving him, was arrested this afternoon at Dallas, Texas. Kirtley will be returned here to face trial on the check charge." (Sacramento *Bee,* April 29, 1936.) He was alleged to be treating ailments in Sacramento.

"Accusing the State Medical Board of withholding her suspended physician and surgeon's license, Dr. Louise Patterson had on file in Superior Court yesterday a petition for a writ of mandate to require the Board to show cause why the license should not be issued. When her license was suspended, Doctor Patterson obtained a Superior Court review of the case and an order that the Board's two-year suspension be cut in half, but she charged that the Board had failed to issue her license upon expiration of the year suspension period." (Los Angeles *Illustrated Daily News,* April 27, 1936.)

"Sheriff John Sharpe went to Adin the first of the week to investigate a report that two fake radium doctors wanted in other parts of the state for fraud, had been in that section. The sheriff stated that he had a talk with the patient John Holbrook, whom they charged $650 for a few minutes of their radium treatment for the removal of a cataract on his eyes. . . . Circulars received by the sheriff's office charge that patients in various parts of

(Continued on Next Page)

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(Continued from Preceding Page)

the state reported they had been victimized by two fake radium doctors professing to remove cataracts with radium treatments. The men are named as Newell, alias Roy L. Martin and James W. Harrison. Persons who saw one of the men claim his description tallies with the picture on the circular. If they should call on you, best be on the safe side and notify the sheriff's office." (Alturas *Plain Dealer*, April 15, 1936.)

"A speeding motor-bus became a battleground early yesterday when a desperate prisoner en route to Oregon for trial engineered a fantastic break for freedom and dragged an unwilling fellow passenger with him. . . . The dramatic battle in the bus occurred on the Redwood Highway, south of Crescent City. It involved William J. Ford, negro, Dr. Thomas Flint, Jr., and Sheriff William Howell of Coquille, Oregon. Flint surrendered shortly after the break. . . . Ford, recently arrested in Ookland and being taken to Coquille to answer burglary charges, was chained to Doctor Flint, who was being transferred to Bandon, Oregon, to answer a forgery charge. . . . With the surrender of Flint, posses, led by the wearied Sheriff Howell and by Sheriff Huffman of Del Norte County, began a relentless search for the negro. . . . Huffman's posse uncovered the fugitive shortly after 10 p. m. Flint was arrested in Oakland and taken from the jail there early Saturday morning. . . . He told authorities that he is the son of Thomas Flint, former state senator. He declared he was a graduate of the University of California and recently had been affiliated in the practice of medicine with a prominent orthopedic surgeon in San Francisco. . . ." San Francisco *Examiner*, April 13, 1936.)

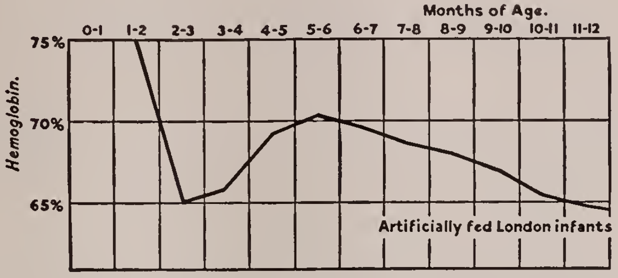
Investigation reports relate that W. W. Arnholz, licensed chiropractor, pleaded guilty in the Municipal Court of Los Angeles, April 29, 1936, to a charge of violating Section 15 of the Chiropractic Act and was sentenced to pay a fine of $50 or serve ten days in the city jail, sentence suspended on condition that he immediately change his sign to comply with the law.

C. O. Fauda, druggist, located at 855 Montgomery Street, San Francisco, was reported by our investigation department as arrested April 16, 1936, on a charge of violation of the Medical Practice Act. Our investigator reported that he found a business card reading "Dr. C. O. Fauda" and a large sign reading "Dr. C. O. Fauda." Fauda claimed that he was entitled to use the prefix "Dr." that he had done so for many years and that he knew of no law which could prevent his doing so. When arraigned before Police Judge Daniel J. O'Brien on April 16, defendant entered his formal plea of not guilty and the matter was set for trial for April 27. On May 4, 1936, C. O. Fauda, druggist, was reported found guilty in the Criminal Department, Municipal Court, San Francisco, for violation of Section 17 of the Medical Practice Act and the imposition of sentence was withheld for a period of six months. Our Special Agent Henderson reported: "This procedure is an innovation on the usual suspended sentence and perhaps will have a better effect, it giving the court complete jurisdiction of the case during the time in which the sentence is in fact suspended."

R. P. Iturralde was reported on April 21, 1936, to have been found guilty in the Police Court of Oakland on a charge of violation of Section 17 of the Medical Practice Act and sentenced to pay a fine of $100 or serve twenty-five days in the Alameda County jail. Our special agent reported: "The fact that the court did not impose a more severe penalty may be explained perhaps by the fact that Iturralde has been in custody since the date of his arrest, April 3, last."

(Continued on Page 26)

Nutritional Anemia in Infants



Hemoglobin level in the blood of infants of various ages. Note fall in hemoglobin, which is closely parallel to that of diminishing iron reserve in liver of average infant. Chart adapted from Mackay. It is possible to increase significantly the iron intake of the bottle-fed from birth by feeding Dextri-Maltose With Vitamin B in the milk formula. After the third month Pablum offers substantial amounts of iron for both breast- and bottle-fed babies.

Reasons for Early Pablum Feedings

1. The iron stored in the infant's liver at birth is rapidly depleted during the first months of life. (Mackay,[1] Elvehjem.[2])

2. During this period the infant's diet contains very little iron—1.44 mg. per day from the average bottle formulae of 20 ounces, or possibly 1.7 mg. per day from 28 ounces of breast milk. (Holt.[3])

For these reasons, and also because of the low hemoglobin values so frequent among pregnant and nursing mothers (Coons,[4] Galloway[5]), the pediatric trend is constantly toward the addition of iron-containing foods at an earlier age, as early as the third or fourth month. (Blatt,[6] Glazier,[7] Lynch[8].)

The Choice of the Iron-Containing Food

1. Many foods reputed to be high in iron actually add very few milligrams to the diet because much of the iron is lost in cooking or because the amount fed is necessarily small or because the food has a high percentage of water. Strained spinach, for instance, contains only 1 to 1.4 mg. of iron per 100 gm. (Bridges.[9])

2. To be effective, food iron should be in soluble form. Some foods fairly high in total iron are low in soluble iron. (Summerfeldt.[10])

3. **Pablum is high both in total iron (30 mg. per 100 gm.) and soluble iron (7.8 mg. per 100 gm.) and can be fed in significant amounts without digestive upsets as early as the third month, before the initial store of iron in the liver is depleted. Pablum also forms an iron-valuable addition to the diet of pregnant and nursing mothers.**

Pablum (Mead's Cereal thoroughly cooked and dried) consists of wheatmeal, oatmeal, cornmeal, wheat embryo, brewers' yeast, alfalfa leaf, beef bone, iron salt and sodium chloride.

[1-10] Bibliography on request.

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(Continued from Page 24)

Special Agent Carter reported a recent investigation in Los Angeles of an individual whose business card read: "A. B. Smith, M. D., D. S., Specialist Kidney, Bladder, Stomach, Resident 125 North Berendo, Phone FE1858." He is said to have induced H. C. Beckner, pharmacist, to print prescription blanks for him, and is also said to have written several prescriptions for various patients. It is reported that the Los Angeles police state that "Smith had a room at Hotel Cecil, where he was apparently doing illegal operations." The police also are said to claim that they have unearthed a number of rubber checks which he left, one of which is held by Druggist H. C. Beckner. Smith is described as a rather heavy set man, medium height, clean shaven, not more than fifty, full face, and a brunette. He is said to have come to California from Texas and returned there before he was apprehended. The Texas authorities report they have a record of an A. B. Smith, who, according to their records, should be a man about eighty years of age and whose Texas license is said to stand revoked.

The social order changes. Only those who think are not left behind by the onrolling globe.—Leon J. Richardson.

State Progress in Aid to Dependent Children Under the Social Security Act.—In connection with the annual observance of May 1 as Child Health Day, the Social Security Board announced today that sixteen states and the District of Columbia have so far submitted and had approved by the Board State plans for aid to dependent children living in the homes of close relatives.

More than 125,000 children are benefited by the cooperative federal-state system of aid now in effect in these seventeen jurisdictions, according to estimates submitted by the states. They receive a small but regular monthly income which enables them to remain in their own homes under the care of their mother or another relative. The Federal Government pays these states with approved plans $1 for every $2 spent in the state for this form of assistance, up to a combined total of $18 per month for the first dependent child in the family and $12 per month for each additional child in the same family. The Federal Government also pays one-third of the states' administrative costs for this form of assistance.

During February and March the federal contribution to states with approved plans for aid to dependent children amounted to $710,000 and for the three months ending June 30, it is expected to be approximately $1,500,000.

In addition to state plans already approved, eight states have submitted plans for aid to dependent children, which are now under consideration by the Social Security Board. These are New Jersey, Minnesota, Michigan, Connecticut, Colorado, Delaware, Massachusetts, and Rhode Island.

Commenting on the progress made by the states in availing themselves of the aid provided for the care of needy dependent children under the terms of the Social Security Act, Miss Jane M. Hoey, Director of the Public Assistance Bureau of the Social Security Board, said today that "while this represents real progress, the seventeen state plans so far approved provide assistance for only a small number of the needy dependent children in the country whom the Social Security Act is intended to aid. It is estimated that there are more than a million such children in the United States.

"Legislation for the care of dependent children in their own homes has been in operation in the United States for more than twenty years and now exists in forty-six states and three territories," she said. "Yet, because of the financial difficulties in which many states found themselves during the last few years, far more dependent children were receiving temporary emergency relief than were in receipt of this regular form of assistance. In 1934

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less than one-third the number of similar families on emergency relief were actually receiving the aid to dependent children for which they were eligible under state laws, and less than one-half the local units of government authorized to grant such aid were actually doing so. Many others were granting amounts insufficient to protect the children involved."

"I am hopeful," Miss Hoey declared, "that state and local appropriations for the care of dependent children will increase rapidly now that federal aid is available, and I would also urge those states which have not yet submitted plans for the care of dependent children to take the necessary steps so that the benefits of the Social Security Act may be extended to children throughout the states and territories of the United States."

Under the terms of the Social Security Act the Federal Government may not give assistance directly to dependent

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Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245 ★
Laryngoscope 1935 XLV, 149-154 ★
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children, but grants financial assistance only to those states which have plans conforming with the provisions of the Federal Act.

"The entire responsibility for initiating and administering aid to dependent children rests with the states themselves," Miss Hoey said. "Each state decides for itself who is eligible for assistance and how much aid shall be given. With the Federal Government standing ready to aid the states, they should be able to provide much more generously than in the past for the needy dependent children who look to them for support."

"Health Foods" and Drugs Seized by Pure Food Officials.—Stocks of "health foods" on sale at Washington, D. C., and Boston, were examined in February by inspectors of the Federal Food and Drug Administration, and six items found in violation of the law. They were labeled so as to give the impression that they were foods possessing special remedial properties. The Administration says they were mixtures of various food and non-food ingredients, and had no greater nutritive value than ordinary foods. Furthermore, in some of them there were medicinal ingredients which, in the view of enforcing officials, have no rightful place in anything sold as food.

The available stocks were seized on charges of misbranding. The charges as to each item are explained as follows: "Correcol," a mixture of mucilaginous seeds similar in characteristics to psyllium, with gum karaya (a vegetable gum), was labeled as a "colon food," although neither ingredient had any food value. It was further claimed that the product would set up normal intestinal activity, which was beyond its capabilities.

"Hauser Potassium Broth" (made of dried seaweed), alfalfa, okra, potato starch, beet and rhubarb leaves, contained nothing especially warranting its name, according to the allegation. The ingredients provided no more potas-

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sium than can be obtained in the normal wholesome diet. A representation that the article was a "health product" was similarly held unwarranted.

"Slim," which the manufacturer called "a delicious nonhabit forming beverage," was in reality a mixture of senna, orange peel, anise, bladderwrack (a seaweed), buckthorn bark, dried apple, and centaury flowers. The Administration flatly charged that this product, containing mostly medicinals with only one true food ingredient, was not a beverage. Also, claims for the reduction of weight were held to overreach the worth of the mixture, which could have a laxative effect only.

"Vege-Broth," one of the items picked up in Washington, was a mixture of dried yeast, alfalfa, onion, tomato, cereal flour, capsicum (a red pepper), okra, and ordinary salt. Its major claim, as a source of minerals, raised the same objection as in the case of the "potassium broth." Minerals were present in no greater concentration or effectiveness than in the average diet. The labeling, nevertheless, represented the product as having special health-giving properties.

The manufacturer of "Vege-Broth," who put on his labels the slogan "Brings you life anew," shipped two other products, "Vegetrate Formula BF1" and "Syl-Wey." Both were misbranded, and both were seized. They were dried mixtures, the former of rice bran, okra, seaweed, cinnamon, cranberry, alfalfa and other leaves. It was said to contain rhubarb, but none was found on analysis. Claims of mineral content were alleged to be false, and curative claims in cases of hyperacidity, bloat and gas, were held to have been made with intent to defraud.

"Syl-Way" was composed of dried yeast, milk, sugar, cornstarch, seeds of the nature of psyllium, and cereal germ (the sprout in the wheat seed). It was called "nature's regulator," and was offered for the treatment of intestinal inflammation and putrefaction, colitis, loss of appetite, malnutrition, and constipation. The claims could not be supported, says the Administration.

The work against misbranded health foods is constantly being pushed, according to W. G. Campbell, chief of the Administration. In explaining the Government's position, he said: "Despite the claims made for them, these products in general add nothing exceptional to the diet. Most of their ingredients, which the promoters insist are lacking in the ordinary bill of fare, are in reality abundantly present in the commonest foods. The business in such misbranded items thrives on the mystery of vitamins and other nutritional factors, capitalizes on the laxative and weight-reduction appeals now being extensively made, and backs up everything with one-sided 'scientific' reports. The federal law applies only to the label claims."

False Claims for Patent Medicines.—Drugs were, likewise, confiscated on various misbranding and adulteration charges, the current monthly report shows. The campaign against isopropyl alcohol mixtures labeled "rubbing alcohol" netted 5,850 bottles in February. Seizures of below-standard drugs included 3,000 bottles of cod-liver oil, and one lot of an epinephrin hydrochlorid solution. An article labeled "Neosupracain—Procain Hydrochloride U. S. P. 2 per cent" was found to exceed the stated strength, and was seized; its label, furthermore, carried no statement of the presence of chloretone, as required by law.

Eight misbranded patent medicines were seized last month. The products and the false and fraudulent claims made for them are as follows: "Apco No. 30 Antiseptic Suppositories," composed of boric acid, quinin sulphate and cocoa butter in gelatin capsules, offered for the relief of women's ailments; "Deo Dennis Eucalyptus Ointment," containing eucalyptus oil, sassafras oil, menthol and camphor, for chest colds, catarrh, catarrhal deafness, asthma, hay fever, influenza, eczema, sores, carbuncles, boils, and

(Continued on Next Page)

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(Continued from Preceding Page)

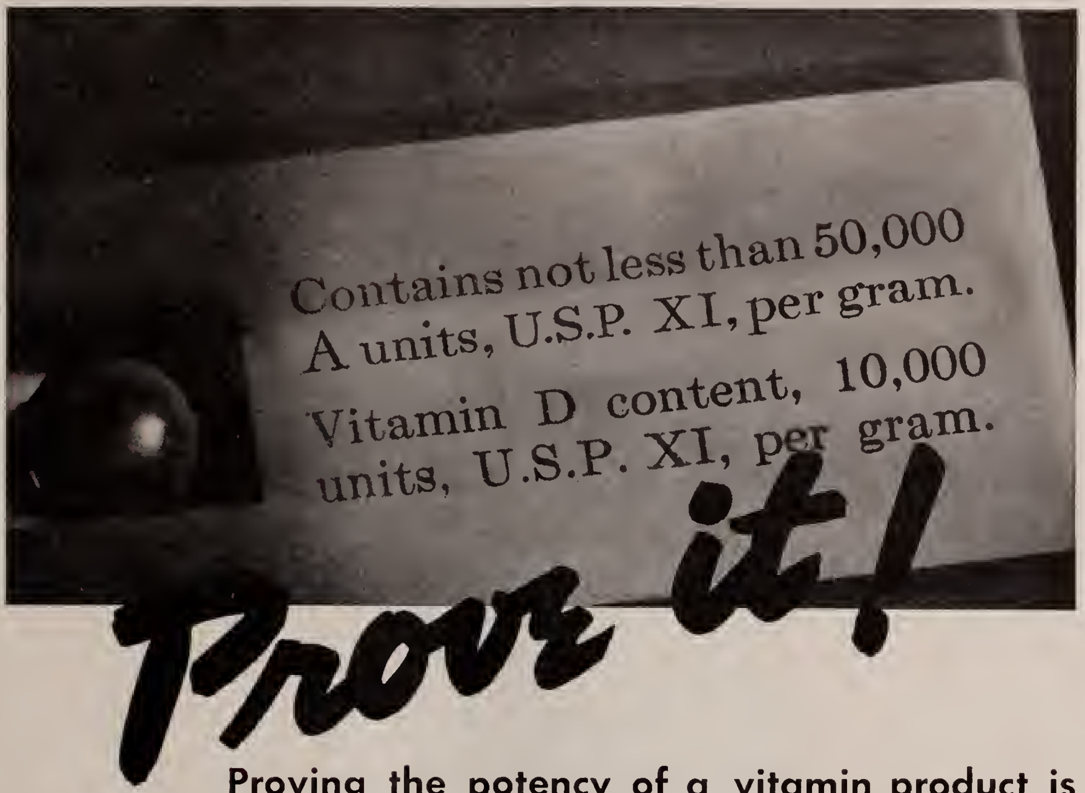
piles; "Doran's Gape Remedy," containing calcium arsenate, calcium arsenite, charcoal, sand, lime and an iron compound, colored purple, for the treatment of gapes in poultry by inhalation; "Knifers Tonic," a mixture of creosote, a chlorid codein, alcohol, and water (on the label of which a percentage declaration of alcohol was incorrect and that of codein lacking), for stubborn coughs, bronchial asthma and other respiratory ailments; "Kopp's," morphin sulphate in an alcoholic syrup, represented as safe for children, despite its narcotic content; "Synex Liquid" (part of the "Syn-O-Scope Treatment"), consisting of eucalyptus oil and other volatile oils in a water-alcohol solution, for sinus trouble, catarrh, hay fever and other irritations and congestions of the head passages; "Van-Tage," a glycerin-water solution of potassium iodid, pepsin and laxatives with flavoring and a preservative, for stomach, blood, liver and kidney ailments; and "Videx," represented as "safe" when in fact containing the dangerous drug amidopyrin, for women's ailments.

Life Begins Today.—"I think I can point out the exact moment when a man begins to grow old. It is the moment, when, upon self-examination, he finds that his thoughts and reflections in solitude turn more to the past than to the future. If a man's mind is filled with memories and reminiscences instead of anticipation, then he is growing old." This comment from William Lyon Phelps, himself seventy years old, should serve as a warning and a promise to those men and women past fifty who lack initiative and courage to face the future.

Whether you are seven or seventy, the years already spent are mere memories; all our aspirations and ambitions are applicable to the time yet to be lived. Life consists of tasks being accomplished and yet to be accomplished. There is, for each of us, much work to be done. Barring ill health, there is no reason why the man of fifty or sixty, or even seventy, should not accomplish worthwhile tasks of use to self and society. To sit back and sigh away the remaining years is to admit defeat, an evidence more of cowardice than of submission.

Human life is becoming significantly prolonged. An editorial in the *Journal of the American Medical Association* (Vol. 105, p. 202, July 20, 1935) points out that life expectancy during the Middle Ages was estimated at twenty-one years. During the eighteenth century in France, twenty-nine years was the average expectation of life, while in 1859 it was forty years in the same country. In the United States in 1915, the life expectancy was forty-eight years, in 1925 it was fifty-five years, and in 1935 it reached 57.74 years. While it is true that the Biblical limit of three score years and ten is something to be conjured with, in this modern day of greater knowledge of hygiene, physiology, rational philosophy and, more especially, of practical dietetics, scientists have concluded that a span of 80, 90, or even 100 years should soon supplant the fatalistic dictum of the Bible. For all of us, whether young or old, *life begins today.* The young should be up and doing and show their physical if not mental prowess as praiseworthy adolescents. At forty a person should be capable of rational thinking though possibly at the expense of physical excellence. The man or woman of sixty or seventy is indeed fortunate in having reached the age of reason, and in this day of brain rather than brawn, what is more precious than the capacity to reason? The sixty-year-old person who is well can have no excuse for discoursing gloomily on his life expectancy and diminished usefulness. He who is ill should look forward with hope and determination to recovery through faith in God and modern medical science.—Israel Bram, M. D., in *Food Facts.*

Professor Sir Henry Jones: The best state is that which both does most for the individual and enables him to do most for himself. I do not doubt for a moment who our ruler is about to be in state and city. It is public opinion.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EDITOR . . . . GEORGE H. KRESS

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Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS[†]

CORONADO ANNUAL SESSION, MAY 25-28: NEWLY ELECTED OFFICERS AND OTHER NEWS

This June number of CALIFORNIA AND WESTERN MEDICINE will have gone to press by the time the sixty-fifth annual session of the California Medical Association is being held. Therefore, it may be necessary to present the news of the general and scientific meetings, and those of the House of Delegates, in the issue for July.

Among subjects which will probably receive attention by the House of Delegates may be mentioned the following:

Shall the California Medical Association, as a state society, authorize the formation of a malpractice defense society or corporation; and if so, by what method and under what control?

Shall the California Medical Association make any new commitments on the subject of compulsory or voluntary health (medical service insurance)?

Shall the California Medical Association make any commitments in regard to hospitalization insurance?

These and many other matters related to intensive and extensive growth and development will be discussed by members and will no doubt be seriously studied by the reference committees, as well as by the members of the House of Delegates.

In this issue only a brief list of officers can be given and this follows. Other information will be printed in the July number of CALIFORNIA AND WESTERN MEDICINE.

* * *

Newly Elected Officers.—Retiring President Robert A. Peers of Colfax was succeeded by President-Elect Edward M. Pallette of Los Angeles.

For the office of president-elect, there was only one nomination, that of Howard Morrow of San Francisco, a member of the Class of 1896 of the University of California Medical School, professor of dermatology in his Alma Mater, and at the present time also president of the California State Board of Health. Doctor Morrow has long been a prominent figure among physicians, well known for both his professional and executive capacity, and his elevation to the California Medical Association's presidency assures a continuation of the splendid progress which has been so much in evidence in the Association during recent years. Doctor Morrow has the distinction of being elected to the office of president-elect, without having previously held office in the State Association.

[†] Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column, which follows.

Dr. W. W. Roblee of Riverside, who this year took over the duties of former Speaker Pallette, received much praise for the manner in which the business of the House of Delegates was conducted. Vice-Speaker John H. Graves of San Francisco was also reëlected.

The terms of the councilors from the second, fifth and eighth districts having expired, the three incumbents, Carl R. Howson of Los Angeles, Alfred L. Phillips of Santa Cruz, and C. E. Schoff, were reëlected. Councilors-at-Large C. O. Tanner of San Diego and T. Henshaw Kelly were also reëlected.

Members who were elected delegates to the American Medical Association were: Charles A. Dukes of Oakland, Edward M. Pallette of Los Angeles, Robert A. Peers of Colfax, and William R. Molony of Los Angeles, their respective alternates being Edward N. Ewer of Oakland, William H. Kiger of Los Angeles, F. F. Gundrum of Sacramento, and John C. Ruddock of Los Angeles.

We do not have at hand the list of appointments of the Standing and Special Committees, but these will be printed in the July issue, with minutes and other proceedings.

* * *

California Medical Association Meets at Hotel Del Monte in 1937.—Hotel Del Monte, in Monterey County, which for years the California Medical Association has recurrently designated as an annual session meeting place, was chosen for next year's meetings, the date of the session, probably some time in April or May, to be set later by the Council.

* * *

Newspaper Comments on the Coronado Annual Session: Excerpts in This Issue.—Pending the appearance of the official minutes in the July issue, this number prints in its Special Articles department (on page 537), excerpts from items in the San Diego newspapers, a perusal of which will give members who are interested an insight into some of the happenings at San Diego.

RETIRING PRESIDENT ROBERT A. PEERS: THE THANKS OF THE ASSOCIATION FOR HIS SERVICES

In recent years the California Medical Association has been fortunate in having, as titular heads of the organization, presidents to whom no service for the advancement of scientific and organized medicine was too arduous, and to each of these colleagues, on the completion of their respective terms of office, the thanks of the Association have been tendered. This seems particularly appropriate for this year's retiring president. If, during the last year it has been possible for the members of the California Medical Association to become better acquainted with the special and very important problems which nowadays confront the medical profession, and to become more unified on procedures to be inaugurated, that much-to-be-desired end was attained partly by the presidential visitation conferences which, particularly during the last twelve months, became of far-reaching influence. During this period, President Robert A. Peers visited practically every one of the component county societies in this great State of California, imposing upon himself a task by no means light, when one considers the extent of the geographical domain included in a coastline of 800 miles and a back country of valleys, plains and mountains, some 200 miles in width.

The messages which were carried to the component county societies by Doctor Peers and his official associates had everywhere, it is evident, a heartening effect. The record made, indeed, is one that sets a hard pace for successors in office. It is to be hoped, therefore, that the members appreciate what it means to such busy colleagues who are honored with the presidential office, when they voluntarily leave their professional work, month after month, to hold these visitation conferences in which problems of scientific and organized medicine, as represented particularly by the California Medical Association and its activities, are directly called to the attention of members of the component county medical societies. It is a great satisfaction to be elevated to the presidency of one's State Medical Association, but it must also be acknowledged that the job, in present days at least, is associated with much hard work and self-sacrifice.

The California Medical Association is today a stronger constituent state unit because of the work of Doctor Robert A. Peers of Colfax. In expressing to him, then, its appreciation and good wishes, the members of the California Medical Association turn to welcome his successor, Doctor Edward M. Pallette of Los Angeles, in full knowledge that he also will carry on in earnest and able fashion, from where his good friends and colleagues laid down their responsibilities of office.

* * *

Members of the Association will be grieved to learn that a serious and fatal illness of President Peers' mother made it necessary for him to leave the Coronado meeting on Wednesday noon, May 27. The sympathy of the Association is tendered to Doctor and Mrs. Peers in this heavy sorrow.

ALAMEDA COUNTY HOSPITALIZATION PLAN: ITS IMPORTANCE

Hospital Expenses a Major Element in the Cost of Sickness.—The shock-cost of a serious illness or injury comes to patient, or relatives, when a hospital presents its bill, with the statement or implied intimation that prompt payment is expected. For a hospital, in one sense, is a hotel for sick and injured people and, as regards board and lodging, must be run along somewhat similar lines, except, of course, that in a hospital practically all meals are given through special room and tray service; and as a first-class hotel, its overhead or maintenance expenses are as great, and usually greater, than those of hotels offering similar accommodations and service. It is to be remembered, too, that guests in a hospital are usually not there through their own volition, but because of necessities created by their illness; this latter element explaining, also, why patients in a hospital often have purses so flat that they find it is a great hardship to meet their expenses under such hospital-hotel conditions.

* * *

Hospitals in Need of Maintenance Endowments.—Another feature of the unfortunate situation is this, that wealthy citizens have not given hospital endowments or support in sufficient amount to permit these hotels for the sick to have accessory income, which could be drawn upon to help pay the hospital costs of deserving persons in lower income brackets. As a matter of fact, while the increase in the number of hospitals in the last several decades has been an outstanding feature of modern-day medicine, the majority of these institutions not only do not own the property they occupy, but carry an indebtedness of sufficient amount to throw their ledgers into the red, whenever the number of resident patients falls below a certain average.

Nor can it be denied that the recent generations of Americans have been educated to use hospitals, and do use them with the same alacrity and ease they display when availing themselves of the convenient radios, automobiles, electric stoves and similar accessories of comfortable living. Unfortunately, however, just as many citizens buy automobiles not adapted to their real incomes, so many persons, upon entering hospitals as patients, plunge into unnecessary expense by insisting on taking high-priced private rooms and special nurses, both of which must be met by their purse when hospital statements are presented.

* * *

Hospitalization Costs Should Be Emphasized.—It is to be regretted, therefore, that in the many discussions of the so-called "high costs of medical care," these hospital expenses have not been more greatly emphasized. One thing is certain: as a rule, members of the medical profession have not been the recipients of overgenerous payment for services rendered to hospital patients. On the contrary, on many, many occasions, physicians and surgeons are told by patients' families that the hospital expenses having been so heavy, it will not be possible to pay much, if anything for the medical or surgical services which in good faith were rendered, and that such payments as can be made, must be in periodical installments.

* * *

Lay and Other Propagandists for State Medicine Are in Error.—The lay and other propagandists for state medicine—who, as a class, are themselves usually well salaried by their "foundations" and supporters—seem to forget the facts stated above, and intentionally, or through indifference or ignorance, continue to carry on their publicity programs for a system of medical practice—state medicine—which they contend would not only materially lower the costs of illness, but would extend the benefits of modern medical science to many more people than at present. Volumes have been written on this subject, and it is not our purpose here to engage in discussing the merits or demerits of the proposition. We believe that these propagandists, well meaning and non self-seeking though many of them may be, are in error in most of their contentions; and we hold with those who are of the opinion that state medicine would give poorer medical and surgical service to the mass of citizens, and that the costs of illness, associated as they then would be with the deficiencies incident to lay bureaucratic management, must be as great or greater than at present, even though much of the bill would be saddled upon the taxpayers in general instead of upon individual patients.

* * *

Two Important Articles in the May "California and Western Medicine": Alameda and New York Plans.—Returning to our earlier contention that the shock-costs of illness are those of hospitalization, rather than of the medical or surgical advisers, we desire to call attention to two articles printed in CALIFORNIA AND WESTERN MEDICINE, entitled "Group Hospitalization on a Periodic Payment Method: Alameda County Plan" and "New York City's Group Hospitalization Plan," on page 450 of the May issue of this magazine.

Both articles are worthy of careful thought, and it is hoped all members of the California Medical Association will take the time to read them.

It is significant that, while the Alameda County Medical Association appropriated $7,500 from its reserve funds to aid, if necessary, in the institution of its plan, the members of that component county society themselves subscribed the entire sum of $25,000 demanded by the state laws to insure performance of contract.

* * *

Four District Hospitalization Associations Suggested for California.—It has been suggested that three similar district hospitalization societies or corporations might be organized along like lines in California: one for the Sacramento Valley, another for the San Joaquin Valley, down to the Tehachapi; and a third for the counties south of the Tehachapi. In this way like hospitalization insurance service would be offered to the entire State. It is believed that if such hospitalization service on an insurance basis could be offered to the citizens of California by and through physicians, and be brought into operation before the next California Legislature meets in January, 1937, the medical profession would be in better position than ever before to combat those who seek to force a compulsory medical service system—state medicine—upon the citizens of California. The entire subject will no doubt be given careful thought at the annual session which convenes in Coronado on May 25.* In the meantime, readers who have not done so, are urged to peruse and carefully consider the two articles above referred to.

DEVISES AND BEQUESTS TO CALIFORNIA MEDICAL ASSOCIATION—"I GIVE AND BEQUEATH"

Bequest Forms Previously Printed.—Under the caption, "I Give and Bequeath," the March issue of California and Western Medicine on page 145 printed some editorial comments indicating the good results that could accrue, both to the social welfare of California's citizens and the advancement of scientific medicine, if bequests for philanthropic purposes were made to the California Medical Association. The thought was brought out that, from time to time, physicians have patients, who, in appreciation for relief from suffering or serious danger to health and life, might very naturally express the wish to give evidence of their gratitude; which gratitude could easily be shown through bequest donation of immediate or more remote cash, to be used for objects such as the advancement of medical research along general or special lines, for maintenance support of hospital beds for indigents, near-indigents, or persons in very moderate financial circumstances, or for activities designed to advance the interests of scientific or organized medicine.

The hope was also voiced—because one occasionally does meet physicians who, through fortunate investments, have been blessed with material prosperity considerably more than that which falls to the lot of most of their fellows—that such members of the profession might likewise desire to remember the Association in their wills, by grants for the promotion of scientific or other activities.

One such bequest has been made to the California Medical Association—that of the late Doctor Morris Herzstein, who died October 25, 1927, leaving a bequest to the amount of $20,000

> "to hold and invest in first-class nontaxable securities, and to yearly pay the net income from said securities to the State Medical Society of California, to be used only by this Society in taking such steps as the Society may consider best for the suppression of quackery in the practice of medicine within the State of California."

The unexpended interest to the credit of this fund is $1,267.56, a total of $5,818.08 of such interest monies having been expended since 1929.

* * *

Citizens Should Be Reminded to Make Such Bequests.—Keeping in mind the great good which could thus easily result from such donations and bequests, it would seem but very proper, when opportunity arises, to remind both lay and professional citizens, who might be in position to make such contributions, that the California Medical Association is organized under the laws of the State in such manner that, through an associated non-profit corporation known as the "Trustees Of The California Medical Association" [quotation marks our own], it is in position to act as the custodian of trust funds, and to faithfully carry out all instructions in deeds of gift.

* * *

The "Trustees Of The California Medical Association," a Nonprofit Corporation.—For the information of members who may not recall the organization set-up of the Trustees Of The California Medical Association, it may be stated that it is a nonprofit organization whose articles of incorporation were filed with the Secretary of State on May 8, 1930, their provisions being outlined in the November, 1930, issue of California and Western Medicine (pages 829 and 833), and reprinted in this number in the Special Articles department on page 540.

Trustees Of The California Medical Association is a corporation without capital stock, duly organized and existing under the laws of California. Its members are the councilors and general officers of the California Medical Association, who remain members of the corporation only during their terms as officers of the California Medical Association. The board of directors of the Trustees Of The California Medical Association are elected from these California Medical Association officer-members.

As a nonprofit corporation legally authorized to hold funds in trust, the Trustees Of The California Medical Association is a responsible body, whose members and directors are required to rigidly observe all legal enactments having to do with the safeguarding of trust funds and bequests. The members and officers of the corporation at all times are physicians who were elected to the positions they hold in the California Medical Association because of the reputations which they had previously established for loyal, disinterested and able service on behalf of their profession and colleagues; on which account there is additional reason to believe that responsibilities delegated to them would always be carried out. The corporation has the advantage, therefore, of being at all times composed of members of integrity and capacity, selected and elected to office by the

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* Minutes of the proceedings of the House of Delegates will be printed in the July number of California and Western Medicine.

House of Delegates of the California Medical Association; the official positions so created giving them also—but only during their terms of office—automatic membership in the corporation known as the "Trustees Of The California Medical Association." Thus, there should be every assurance that the members and directors of the Trustees Of The California Medical Association would at all times be responsive to the ideals of the members of the California Medical Association, as well as to the legal provisions which the State of California has seen fit to enact in order properly to protect gifts of trust. The articles of incorporation, to be found in this issue on page 540, give additional information.

* * *

Additional Grant and Bequest Forms.—In the March issue, on page 146, three forms, one of Legacy, another of Devise of Real Property, and a third, that for a Bequest of Personal Property, were given. In the 1931 "Directory" of the California Medical Association, on page XXIII, also we printed five somewhat similar forms, all of which were submitted by us at that time to the General Counsel of the Association, for approval as to proper legal phraseology. For their suggestive value and because of the importance of the subject, these are here reprinted:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

RATIONAL MEDICINE: A "FIFTY-YEAR-AGO" ARTICLE BY DR. JOSEPH P. WIDNEY

Readers of the April and May CALIFORNIA AND WESTERN MEDICINE,* who failed to peruse the biographical sketch of Dr. Joseph P. Widney, founder of both the Los Angeles County Medical Association and the College of Medicine of the University of Southern California (and still in active literary and other work at the age of ninety-five), deprived themselves of a rare opportunity to reflect on the many possibilities in life for broad and helpful service. Reference is again made to Doctor Widney because this and next month's magazine will publish a paper on rational (nonsectarian) medicine, brought out by Doctor Widney some fifty years ago, and yet today having presentations as true as they were then; the articles showing how fundamental is the basis upon which scientific and rational medicine are grounded. What Doctor Widney stated in such clear fashion a half century ago, still obtains and will continue to obtain; for only that which is truth prevails—a truism that applies to medicine as to all other things. Part I of Doctor Widney's discussion of Rational Medicine will be found in this issue on page 513.

SUPREME COURT OF CALIFORNIA RULES THAT THE GIVING OF AN ANESTHETIC BY A NURSE IS NOT ILLEGAL PRACTICE OF MEDICINE

On May 18, the California Supreme Court handed down an important opinion, on an appeal from a decision rendered by the district court, in which the latter court had ruled that the giving of an anesthetic by a nurse was not a violation of the Medical Practice Act of California, and was not illegal practice of medicine here.

This opinion announced by Chief Justice William Harrison Waste—Associate Justices Conrey, Curtis, Langdon, and Thompson all concurring—is printed on page 537 of this issue, and is commended for study to the members of the California Medical Association.

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* See pages 251 and 292 in the April number, and page 396 in the May issue.

Heretofore, the Board of Medical Examiners of the State of California has held a view contrary to that expressed by the Supreme Court, although it has not made any arrests to test out its interpretation.

The Supreme Court's opinion covers some of the major points at issue. Unless a petition for a rehearing is presented and granted, and the opinion reversed, the court's interpretation of the Medical Practice Act, on the giving of anesthetics by nurses, will stand as law in California.[*]

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 522.

EDITORIAL COMMENT[†]

TOLERANCE TO COD-LIVER OIL—U. S. P. X[§]

Recently, interest has been focused on the use of large amounts of vitamin D in the treatment of chronic disease states.[1] Leake [2] has emphasized the dangers of such therapy, since deaths have followed the use of irradiated ergosterol [3] and cod-liver oil.[4] The present case is reported as an instance of overdosage (10 liters of unirradiated Cod-Liver Oil—U. S. P. X), in which no symptoms or signs of toxicity were noted, though a derangement of mineral and carbohydrate metabolism was observed, which was believed due to the uncontrolled self-medication.

A woman of twenty-five years, weighing 55 kilos, took an average of 100 cubic centimeters of Cod-Liver Oil—U. S. P. X and a quart of cow's milk daily to gain weight. After three and one-half months she had gained 11 kilos, at which time she stopped taking the oil but continued the milk intake in the same amount. One month later, on examination she was found symptom-free and without physical signs referable to vitamin A or D toxicity. Laboratory examinations of blood, clotting time, complement fixation, urine, phenolsulphonephthalein excretion, and basal metabolism were within normal limits. An electrocardiographic tracing showed no abnormal changes.[5] Blood cholesterol was 194.6 milligrams per cent, calcium 9.0 milligrams per 100 cubic centimeters, and phosphorus 5.6 milligrams per cent.[6] Analysis of a twenty-four-hour urine specimen revealed 0.25 grams of calcium and 1.281 grams of phosphorus in 1,810 cubic centimeters.[7] The parathormone titer, determined by the method of Hamilton,[8] was within the normal range. A test of tolerance to 100 grams of glucose given orally after a twelve-hour fast showed the following concentrations over the four-hour period: 79, 80, 80, 88, and 79 milligrams per 100 cubic centimeters, without glycosuria. Roentgen examination of the skull showed no changes in bone density or evidence of demineralization as compared with roentgenograms taken four years previously.

COMMENT

With the exception of the abnormal response to glucose ingestion, no damage following the excessive daily intake of 100 cubic centimeters of Cod-Liver Oil—U. S. P. X over a hundred-day period was evident, so far as our examination disclosed. The disturbed tolerance noted might be due to a more rapid utilization of glucose by the tissues or to more prompt glycogen formation. The normal calcium and elevated phosphorus blood levels apparently indicate that rapid excretion of these minerals by normally functioning kidneys occurred with no evidence of demineralization of the bones being apparent. The excess excretion of calcium and phosphorus observed is thought by Thatcher [3] to be due to undue stimulation of the calcium phosphorus metabolism by strong concentrations of vitamin D given over a relatively long period, the calcium being lost instead of utilized. The rise in blood phosphorus without a corresponding hypercalcemia noted in our case is considered by Thatcher [4] to be evidence of vitamin D toxicity. This is the first clinical demonstration, so far as we can determine, of deranged mineral metabolism under these circumstances. Four or five times the recommended daily dose of cod-liver oil may be taken, then, on the basis of these findings, with disturbance of mineral balance, but without symptoms or physical signs of dysfunction. In cases suspected of vitamin D toxicity, an examination of the blood and urine for calcium and phosphorus should be helpful in early diagnosis.

University of California Medical School.[‡]

Hamilton H. Anderson
Alfred C. Reed
San Francisco.

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[*] At Coronado the House of Delegates and the Council instructed General Counsel Peart to make request of the Supreme Court for a rehearing. The Board of Medical Examiners of the State of California has also petitioned Attorney-General Webb to join in the case as *amicus curiae*.

[†] This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California and Nevada Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

[§] From the laboratory of Dr. Alfred C. Reed and the pharmacological laboratory of the University of California Medical School, San Francisco.

[1] Dreyer, I., and Reed, C. I.: Arch. Phys. Therapy, 16:537 (Sept.), 1935. Vrtiak, E. G., and Lang, R. S.: J. A. M. A., 106:1162 (April 4), 1936.

[2] Leake, C. D.: Calif. and West. Med., 44:149 (March), 1936.

[3] Thatcher, L.: Edinburgh M. J., 38:457 (August), 1931.

[4] Thatcher, L.: Lancet, 230:20 (January 4), 1936.

[5] Kindness of Dr. Francis Rochex.

[6] Kindness of Dr. Zera Bolin.

[7] Kindness of Dr. May Olney and Dr. A. S. Mulay.

[8] Hamilton, Bengt, and Schwartz, C.: J. Pharmacol. and Exper. Therap., 46:285 (November), 1932.

[‡] The authors are indebted, for technical assistance, to Mrs. Media Orem Dahl.

HYPERPARATHYROIDISM WITH NEPHROLITHIASIS

In 1891 von Recklinghausen described a condition of marked softening of bone with deformity, which he termed "osteitis fibrosa." Askanazy, in 1904, was the first to associate generalized osteitis fibrosa with parathyroid tumor. In 1925 Mandel and Uebelhör noted improvement following resection of a parathyroid tumor in a case of osteitis fibrosa. During the last two years, Albright, Barney, Colby, Chute, Castleman, and others, have emphasized the association of hyperparathyroidism and nephrolithiasis. Albright and Bloomberg (1934), in a review of eighty-three cases of hyperparathyroidism, noted that calculi were present in the kidney pelvis or calyces in twenty-three cases, and deposits of calcium in the renal tubules in seventeen cases. Of twenty-three cases of hyperparathyroidism at the Massachusetts General Hospital proved by operation, fifteen had renal calculi and three others had calcium deposits in the renal tubules. It is important to note that eleven of the twenty-three patients were suspected of having parathyroid disease only because of the renal calculi, and had no bone disease. Only five patients had bone disease without renal disease. It appears, therefore, that renal lithiasis is a more frequent manifestation of hyperparathyroidism than is bone disease. The report of Barney and Mintz (1934) suggests that perhaps 10 per cent or more of cases of renal calculus are on the basis of hyperparathyroidism.

Albright and Bloomberg (1934) reported that hyperparathyroidism is so frequent as a cause of the formation of stone in the urinary tract that it must be ruled out in every case of renal calculus. Attention has accordingly been called to the importance of performing routine tests for serum calcium and serum phosphorus in cases of renal lithiasis. We have now made this a routine procedure in all cases of renal calculus at the Southern Pacific Hospital. A value of more than eleven milligrams per hundred cubic centimeters for the serum calcium and less than 3.5 milligrams for the serum phosphorus should always be an indication for investigation of the parathyroids. The skeletal changes in hyperparathyroidism are characterized by decalcification and, in some cases, multiple cyst formation. It is important to realize that renal lesions may occur without evidence of changes in the bones. The former are an index of the severity of the disease, and the latter an index of its duration. The excessive excretion of calcium in the urine in hyperparathyroidism results in the formation of calcium deposits in the renal tubules, or actual stone formation in the renal pelvis. Frequently many finely granular casts are found in the urine. The granules have been shown to contain calcium, probably calcium phosphate. These casts can be changed to hyalin casts as the acidity of the urine is increased. Their presence in large numbers is an indication that damage is being done to the renal parenchyma, and shrunken sclerotic kidneys may be the end-result with a uremic death. In cases of very severe renal damage the blood phosphorus and calcium may approach normal, so that these factors are no longer of aid in diagnosis.

This was illustrated by a personal case, a woman, forty-two years of age, whose only complaint was rheumatism, chiefly affecting her knees. X-rays of her skeletal system exhibited marked generalized osteoporosis characteristic of hyperparathyroidism, with cyst formation in the pelvic bones. A plain x-ray of the kidneys showed them to be much smaller than normal, with a stone in the left renal pelvis. The phenolsulphonephthalein excretion was practically nil in three hours. The blood urea was 271 milligrams per 100 cubic centimeters. The blood serum calcium was 10.1 milligrams per 100 cubic centimeters, the blood serum phosphorus 2.83 milligrams per 100 cubic centimeters. The patient died three months later. In another patient at the Southern Pacific Hospital, who came in on the urologic service because of renal colic due to calculi, the skeletal x-rays showed widespread decalcification with cyst formation in the maxilla. Urograms showed bilateral calcium deposits in the parenchyma of the kidneys, with stones in the kidney pelves. He had previously required operation for stone obstructing the left lower ureter. Total renal function was rather markedly impaired. His blood calcium varied from 15.2 to 19.3 milligrams, his blood phosphorus from 2.9 to 4.0 milligrams. A large parathyroid tumor, weighing 10.10 grams, was removed at operation. Failure of his blood calcium to return immediately to normal proved that probably not all of the hyperplastic parathyroid tissue had been removed. Before further surgical exploration of his neck he is being given a trial of x-ray treatment.

As emphasized by Lahey and Haggart, we must all, particularly the orthopedist and urologist, be on the lookout for hyperparathyroidism in patients complaining of pain in the back or extremities, in patients with diffuse neuritis or arthritic pains made worse on motion, in patients with progressive loss in stature, in patients with cystic bone disease or with a pathologic tendency to fractures, and in patients with kidney stones. Many patients with hyperparathyroidism, who could be relieved of their condition by surgical removal of a parathyroid adenoma, have in the past passed through our hands and probably are still passing, with their condition unrecognized.

450 Sutter Street.

Thomas E. Gibson,
Lloyd B. Crow,
San Francisco.

To live in the temper and spirit of a learner, open-minded, unwarped in judgment, free as far as light permits from delusions, eager to explore and inquire, quick to give up a confuted idea and so gain a higher outlook, striving steadily to improve and to grow—these are watchwords of a person who is striving to advance his intellectual life.—Leon J. Richardson.

. . . We do not yet sufficiently realize the truth that as, in this life of ours, the physical underlies the mental, the mental must not be developed at the expense of the physical. . . . —Herbert Spencer (1860).

ORIGINAL ARTICLES

ADDRESS OF THE PRESIDENT[*][†]

SIXTY-FIFTH ANNUAL SESSION OF THE CALIFORNIA MEDICAL ASSOCIATION

By Robert A. Peers, M.D.
Colfax

> *"The Swans, which are Fowls consecrated to Apollo, never chant but in the hour of their approaching Death, especially in the Meander Flood, which is a River that runneth along some of the Territories of Phrygia. This I say, because Elianus and Alexander Myndius write, that they had seen several Swans in other Places die, but never heard any of them sing or chant before their Death. However, it passeth for current, that the imminent Death of a Swan is presaged by his foregoing Song, and that no Swan dieth until preallably he have sung."* — François Rabelais. Third Book. Chapter XXI.

* * *

THIS meeting marks the end of my term as president, and I wish at the very beginning of my address to express to the members of our organization my appreciation of the honor extended me in electing me to the highest office within the gift of the Association. I have endeavored to fill that office with fidelity and with dignity.

It is not my purpose this morning to discuss any medical subject, although I realize that it is quite customary upon such occasions for the president of a medical association to confine his address to some medical topic in which he is particularly interested, or to some branch of medicine or surgery in which he has had special training or experience. A study of the splendid scientific program to be presented at this meeting, covering as it does discussions of nearly every branch of medical study, has persuaded me that my remarks could very well and very properly be directed toward consideration of other, but related matters of increasing interest to the medical practitioner. I refer to matters pertaining to organized medicine in California, and to the California Medical Association which, containing within its membership 83⅓ per cent of the qualified registered physicians in this state, is organized medicine in California.

RECENT INCREASE IN MEMBERSHIP

During the past year our Association has increased in membership. At the beginning of the year we had 5,400 members and were, in point of membership, the fourth largest constituent state unit of the American Medical Association. While we are proud of this relatively strong position, we must not forget that there are still among the registered practicing physicians of California more than one thousand men and women eligible to membership who, as yet, are not included in our Association, and whom we should endeavor to enlist in the ranks of organized medicine.

ASSOCIATION INTERLOCKS WITH CALIFORNIA'S CITIZENSHIP

Any organization which, in a state of six million inhabitants, has 5,400 members, presumably must command great influence. When those 5,400 members consist of educated, cultured men and women, one would naturally conclude that such influence would be greater than that of another group of 5,400 individuals lacking such cultural and educational advantages. And when it is realized that to these 5,400 members are entrusted the health and well-being of perhaps millions of the people of the state, many hundreds of thousands of whom are registered voters who look to these members for guidance in matters pertaining to public and private health, one begins to realize the potential possibilities of that influence, if exerted *en masse* and solely for the good of and in the interests of society. Contemplating such mass action by a membership of such character and qualifications, one can readily envision the solution of the problems that now confront organized medicine.

The great difficulty is to secure mass action in a membership agreed among themselves as to the best measure of procedure.

OFFICERS' CONFERENCES WITH COMPONENT COUNTY SOCIETIES

It has been with the hope of securing this unanimity of action that your president and your secretary, supported by and accompanied by the other general officers and the members of the Council, have, during the past year, visited every section of our great state, and conferred personally with the officers and members of all the component county societies. As a result of these visits, much, we believe, has been accomplished in the welding together of our membership and in the crystallization of opinion as to policy and action. But there still remains much to be done. The membership needs continued instruction regarding the nature and democratic character of our organizational set-up, regarding the problems which confront us, and regarding the best methods for their solution. We hope that the practice of state-wide visitation, so ably and so foresightedly inaugurated by our past president, Doctor Toland, and continued during the past year, will become an integral part of the duties of your officers in the years to come. If this is done, and every situation and activity within and without the Association clearly and frankly explained, the result will be a firmly moulded and well-organized unity of action which will make organized medicine the power for good in the state to which, by its training, its experience and its numbers, it is entitled.

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[*] Read at the sixty-fifth annual session of the California Medical Association at Coronado, May 25-28, 1936.

[†] Foreword.—At the beginning of my address I have placed, as a foreword, a quotation from a very distinguished physician and humanist who was born in the latter part of the fifteenth century and lived until shortly after the middle of the sixteenth century. That he was a physician of attainment of that period and that he was versed in physiology and anatomy far beyond confrères of his time will readily be acknowledged by anyone who has read the fourth chapter of the third book of his best known work, wherein, among other things, it may be seen that he anticipated Harvey's discovery of the secret of the circulation of the blood by at least one hundred years.

In addition to his professional attainments, he was probably the foremost classical scholar of his time. The quotation is from the twenty-first chapter of the third book of Francois Rabelais' "The Lives, Heroic Deeds and Sayings of Gargantua and His Son Pantagruel." The reason for the quotation is self-evident.

"CHANGING ORDER IN MEDICINE"

Today we hear much of "the changing order of medicine." It is true that medicine has advanced in knowledge and in the possession of newer methods and newer equipment for diagnosis and treatment. The advance in knowledge in the fields of physiology, biology, pathology and bacteriology, and in the therapeutics of medicine and the mechanics of surgery, and in every department of science allied to medicine, has been, in the past few decades, far beyond the dreams and hopes of the most optimistic members of the profession of the nineteenth century. But the aims of medicine have not changed. The thoughts and efforts of the members of our profession are now, as they ever have been among all true disciples of Aesculapius, first and foremost the interest and welfare of the patient, the protection of the health and the cure of the ills of the people whom they serve.

MEDICAL PROFESSION'S RECORD OF ALTRUISTIC SERVICE

It has been the great advances in medical knowledge and the employment of auxiliary services, such as hospitalization, nursing services, and the introduction of and employment of so many new and relatively expensive diagnostic procedures, that has led to most of our troubles which, fundamentally, are based upon economics. But with all the advance, the aim of the medical profession has been the same: To give to all the people at all times, irrespective of financial consideration, the best medical and surgical care that the circumstances will permit. I have no patience with the statement, so often made in the past few years by proponents of various panaceas, that thousands of people have died because of the lack of proper medical care. It is not true. To the honor of the profession it can be said that, in good times and in bad, they have been ready and willing to give of their services freely and unselfishly to each and every sick or injured person. Nay, more; they have not only been willing to do this, they have done it.

EFFECTS OF WORLD'S ECONOMIC DEPRESSION ON MEDICAL PRACTICE: SOME NEW DISEASES

Added to the increased cost of sickness resulting from the introduction of the newer knowledge and of the increased utilization of (and I may say, demand for) the above mentioned auxiliaries to medical care, there has been imposed the longest and the most severe depression in many decades, a depression not confined to this country, but world-wide in extent. And with this depression have arisen, as history teaches us have always heretofore arisen in times of stress, proponents of panaceas and propounders of new philosophies. The body politic, social and medical, with a high degree of immunity to socialistic and communistic fantasies, with a resistance built up by years of prosperity, has been so weakened by economic ills as to be in danger of succumbing to the microorganisms of strange mental and philosophical disease, spread by propaganda in the form of the printed and the spoken word, via the press, the platform, and the radio. These strange diseases include, among others, boondogglingitis, state totalitarianitis, prosperity by scarcititis. There have appeared also signs of neoplastic growths of social medicine and of the political control of medicine. And there has been added to these inoculations the morphinism of subsidies; not in millions, but in billions, weakening the moral and spiritual fiber of its victims.

Following the inoculations of, or the grafting upon the body politic of these new diseases or of these tumorous masses, has come a change in the philosophy of a large proportion of the people of these United States. Where formerly we boasted of our individualism, of our reliance upon our own courage and upon our own efforts, we find a tendency to look to and to lean upon governmental aid in all our activities.

PROPAGANDA FOR STATE MEDICINE AND OPEN COUNTY HOSPITAL

Wherein does this concern organized medicine? The answer, to name only two items, is to be found in the demand for state medicine and in the increasing clamor for the opening of county hospitals to all taxpayers, irrespective of their ability to pay for private medical care and hospitalization. It is not enough to say that these measures concern largely the taxpayers, who will be forced to pay the price of these innovations. It is not enough to deplore these trends because they will, if consummated by legislation, affect the pocketbook of every citizen. It is up to us, as physicians, to protect the interests of our clients, the ill and the injured, whose health and well-being are at stake, if the nation, the state, or the county comes between the physician and his patient.

In opposing these demands for Government aid to others than the indigent and the near indigent, organized medicine will be accused of self-interest and an attempt to fatten upon the misfortunes of the poor. No more untrue and unfounded charge could be made. One of the brightest jewels in the crown of the medical profession is the willingness of its members to extend ungrudgingly to every member of society, irrespective of social or financial status and irrespective of the hope of fee or reward, the best that medicine has to offer.

TWO IMPORTANT OBLIGATIONS OF ORGANIZED MEDICINE

Nothing could better illustrate the attitude of organized medicine than the statement of the obligations of organized medicine as outlined by our secretary, Doctor Warnshuis, during our joint visits to the component county societies. On each occasion Doctor Warnshuis emphasized these two important duties of organized medicine:

1. Its obligation to bring postgraduate work to its members.

2. To enlighten the public as to what scientific medicine has and holds for their benefit.

Why this emphasis? Why should organized medicine wish to bring each of its members to the highest degree of efficiency in the profession? To enrich the members of the profession? No! Except as education enriches the mind and aids efficiency. The answer is, that the members may be better prepared and better qualified to give the best that medicine has to offer to every patient, rich or poor.

Why should organized medicine enlighten the public? To increase the prosperity of the doctor? No! The answer is, in order that the public may have such knowledge as to enable its members to know where to seek proper medical advice and to enable them to escape the pitfalls of quackery and charlatinism.

FORCES ANTAGONISTIC TO SCIENTIFIC MEDICINE

But while organized medicine is thus engaged it must remember that, immersed in their humanitarian interests, employing their time and talents in improving their efficiency, they are apt to forget that they are assailed by forces from without busily engaged in undermining the foundations of their organization. The members of the medical profession must be politically minded if they would not wish to see medicine dominated and regulated by political appointees, and its practitioners relegated to the limbo of forgotten men. Medicine must come out of the cloister, not only every two years at the time of elections or during the meetings of the legislature, but must come out and stay out. We must continue, as heretofore, to work for every measure intended to promote and protect public and individual health, and to continue to oppose every measure whose enactment would jeopardize that health, and continue to protect professional standards against the assaults of cultists and other such groups. We must be prepared to offer some constructive measures for the solution of the increased cost of sickness, and the uneven distribution of sickness. It is not enough to say we oppose this or that measure which we know is not to the best interests of the public, no matter how appealing such measures may be made to the untrained or the unthinking mind. The best defense is an offense. Foch, at the first battle of the Marne, with his right in confusion and his left retiring, attacked with his center and changed the course of the Great War. Let us attack with our center, with some constructive measure that will help spread the cost of sickness over a great number, so that the few who must meet with the financial strain of sickness may be protected by a common fund. And let the control of such a fund and the administration of such a system be under the control of medicine, where it belongs, or with the representatives of organized medicine rather than under the domination of a political body.

To do these and the many other things with which medicine, against its wishes and often to its dismay, must cope, will require a united profession and a full treasury. We will need the sinews of war. Will organized medicine present that united front and provide that treasury? These are two of the important issues organized medicine must face. Upon the answers of organized medicine will largely depend its fate and the fate of the public which it endeavors to protect.

IN CONCLUSION

I cannot close this address without adding two comments. First, I wish to refute an impression which has been bruited in certain quarters and which has gone abroad in the land. I refer to the impression had by some, including those directing the policy of certain newspapers and magazines, that organized medicine in California is on the verge of revolt against its parent body, the American Medical Association. Medical men are trained thinkers and are, more or less, individualists. It is, therefore, not surprising that differences of opinion may arise, and have arisen, regarding the best methods for the solution of medical problems. Organized medicine in California is in close accord with the officers and members of the American Medical Association in their valiant efforts to uphold the standards of medicine and to prevent the exploitation of the profession and of the public. Any differences of opinion, such as have arisen, have been differences as to details and not as to fundamentals. These differences of opinion will be solved in a friendly coöperative spirit through evolution and not by revolution.

Second, I would repeat what I have said to every component county society: Read CALIFORNIA AND WESTERN MEDICINE. It is your medical journal and it is the outstanding state journal of this country. Read it; acquaint yourself with the problems of organized medicine and of the manner in which your officers are trying to solve those problems. The time has arrived when, if you are to survive, you must be not only a good doctor, but also an informed and active member of organized medicine.

Colfax School for the Tuberculous.

A RURAL CANCER CLINIC*

By WILLIAM R. DORR, M.D.
Arlington

DISCUSSION *by Charles A. Dukes, M.D., Oakland; Alson R. Kilgore, M.D., San Francisco; Clarence G. Toland, M.D., Los Angeles.*

INSTEAD of the above title, "A Rural Cancer Clinic," it might be more appropriate to head this article, the "First Annual Report of the Riverside County Cancer Study Group."

ORGANIZATION OF THE RIVERSIDE COUNTY GROUP

In the summer of 1934 a small group of the medical staff of the Riverside County Hospital met and discussed the feasibility of establishing a cancer clinic at the hospital, and decided to ask Dr. J. M. Flude, western representative of the American Society for the Control of Cancer, to advise the group. Doctor Flude came to a meeting at the hospital on August 27, and was accompanied by Dr. C. Hiram Weaver, chairman of the Cancer Clinic at the Hollywood Hospital, Hollywood.

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* From the Riverside County Hospital.

Nine local doctors attended this meeting and received a large amount of information and many helpful suggestions from these men. After this meeting several of the Riverside men visited the cancer clinics at the Los Angeles County Hospital and the Hollywood Hospital; literature was obtained from the American College of Surgeons and also from the Cancer Committee of the California Medical Association, and the first meeting of the Riverside County Cancer Study Group was held on October 3, 1934.

All of the doctors of the county were invited to attend this meeting, and twenty were present. Meetings have been held every week since the initial meeting, lasting one hour, from 12:30 to 1:30, and all members of the medical profession are welcome to attend and to participate in the examination and discussion of cases. Our attendance has averaged fourteen at each meeting for this first year.

DIVISION OF THE WORK

The meetings are divided into three sections: first, business session; second, study session; third, clinical session.

The business session at first consumed considerable time at each meeting, but soon was reduced to a minimum.

In instituting a study session, we frankly recognized that our "knowledge" of cancer might better be described as "ignorance," especially when it came to carrying out principles of treatment as recognized today. We have attempted to remedy this by studies made of different types of cancer by different members of the group, by talks, demonstrations and discussions by the pathologists, by reports and discussions on various articles read, and by all other means that have presented themselves to us.

The clinical session at each meeting is devoted to the study of new cases for diagnosis and recommendations relative to treatment; the presentation of old cases for further recommendations and to note the progress, and the presentation of specimens removed at operation or autopsy.

RELATION TO THE RIVERSIDE COUNTY HOSPITAL

All cases coming to the Riverside County Hospital or to the out-patient department that present any symptoms suspicious of cancer are automatically referred to the Group—in fact, we contemplate changing the name of the Group to the Riverside County Tumor Study Group, so as to be sure to see all suspicious cases.

At the start two handicaps presented themselves: First, there was no radium available for treatment, and patients had to be sent to Los Angeles, a distance of about fifty miles, for this treatment, and the prices charged soon demonstrated that the county would have to make other arrangements. The purchase of an adequate supply of radium, although undoubtedly the most economical in the long run, could not be financed, but we have made very satisfactory arrangements for radium treatments with a physician who comes to the hospital.

Second, there was no x-ray machine in the county capable of giving deep therapy treatments. Since then two machines have been installed by the two radiologists practicing in this district, and we have made satisfactory arrangements with one of them for the care of county cases needing such treatment.

CLINICAL MATERIAL DURING THE FIRST YEAR

During the first year of the Riverside County Cancer Study Group, 119 cases have been handled in the clinic, and of this number sixty-eight cases have been definitely proved to be malignant.

In trying to evaluate the work done during this first year, we cannot point to any scientific achievements that have been attained by the Group, either in diagnosis or treatment; nor at this time can we evaluate the benefits to the patients who have been treated, as the time under observation is too short to be of any conclusive value; nor can we attempt to summarize the benefits that have accrued to the different individual medical men who have attended the meetings, helped in the study of cases and entered into the discussions relative to diagnosis and treatment. The fact, however, that so many of the medical men have an almost 100 per cent attendance clearly demonstrates that they feel they are receiving real benefit from their association in the study of the cancer problem. At the end of another year we feel that we should begin to be able to point to more definite results.

OBJECTIVES TO BE SOUGHT

There are, however, three points that stand out in the first year's work: First, the fact that sixty-eight definitely proved malignant cases have been found in a single year in a county hospital serving a population of about 85,000 has been rather startling to many of the medical men of this community, and also to others who are interested in such matters. Second, the large percentage of far-advanced cases coming to the clinic, for which there is nothing that can be done except palliative measures. Third, the fact that several cases have been seen in which the primary treatment instituted was not an adequate treatment, so that the possibility of ultimate cure was lost.

The objectives of the Group up to the present time have been three in number:

1. To increase the knowledge of the individual members of the Group relative to the diagnosis and treatment of cancer.
2. To diagnose and cure as many cases of cancer as possible among the patients applying to the county for care.
3. To alleviate the suffering of the hopeless cases coming under the care of the hospital.

In considering the above objectives, the question naturally arises as to whether at this time we should attempt to broaden the field of our work and add to our objectives by instituting a campaign to reach a larger percentage of the population. We feel, therefore, that at this time we might with profit consider the advisability of instituting a program to educate the public of the county relative to the diagnosis and treatment of cancer, and the value of early recognition and application of appropriate treatment. How might this be accomplished? Can we learn anything by studying the methods that have been used in controlling the different infectious diseases that formerly were so prevalent, but which now are practically under control?

The knowledge of how to control smallpox, diphtheria, typhoid fever, tetanus, yellow fever, typhus fever, and rabies, is now so accurate and exact that the control of these diseases has today become entirely the function of the organized public health service of the country, and has been definitely accepted as a function of government to be paid for from tax funds.

The magnitude of the problem involved in the control of tuberculosis has delayed the assumption of this burden by the taxpayers, but in recent years the results obtained by proper handling of cases have become so definite and encouraging that less and less is being done by private agencies and lay organizations with funds furnished by private individuals. Now a very large percentage of the curative work in tuberculosis is furnished in tax-supported institutions, and also the work of case finding and diagnosis is recognized as a public health problem and most of it is tax-supported. Research in tuberculosis control is, however, in the United States still a function or private enterprise, and is not to any appreciable extent assumed by the government. Many European governments, on the other hand, are spending large sums of money on this phase of the work.

IN CONCLUSION

It would appear at this time that our position in the control of malignancy is in the same position that the control of tuberculosis was some twenty-five years ago. We have a glimmering of the underlying principles that must be adopted to control this disease, but how to get these principles universally in use so that definite results may be obtained, is at this time decidedly obscure. It would appear that at this time the help of the general public must be obtained, and that the methods that have been used in furthering the control of tuberculosis are applicable to the control of cancer.

In closing, may we quote a statement with which we are in full accord, made in a recent *Bulletin of the American Society for the Control of Cancer:*

> "Having built up a foundation of scientific and medical knowledge concerning the disease itself and the facilities for its treatment, the next step is clear. This consists in the establishment of local organizations which will assume the responsibility and expense of educating the laity to recognize signs and symptoms which may mean cancer and to report these signs and symptoms immediately for diagnosis and treatment."

Riverside County Hospital.

DISCUSSION

Charles A. Dukes, M. D. (426 Seventeenth Street, Oakland).—I approve of Doctor Dorr's paper and in his effort to organize a cancer clinic. It can be done when men like Doctor Dorr take the responsibility, and make the sacrifice of time and money to carry on.

The problem is a group one, and the general men can well care for many of the problems presented. Unless there can be as a part of the group a competent pathologist and radiologist, the clinic will not be complete. I am convinced that all radiation should have the guiding hand of a well-trained physicist, as well as thorough clinical knowledge.

The average number of cancer cases in the indigent sick is about the same as we have found in Alameda County.

Publicity should be promoted through the Cancer Commission of the California Medical Association, and they at all times are ready to assist in this work.

The American College of Surgeons is approving the establishment of cancer clinics in all large centers, both of diagnostic and treatment types.

The solution of the problem of tuberculosis did not progress satisfactorily until the term "consumption" was dropped, and tuberculosis was used and understood by the layman. Is not the cancer problem analogous, and will not the great horror be lessened when we use "cancer clinic" and not try to subterfuge?

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Alson R. Kilgore, M. D. (490 Post Street, San Francisco).—Doctor Dorr and the Riverside County Cancer Study Group are too modest in estimating their accomplishments. Results of their year's work are perfectly clear: The size of the local cancer problem has been demonstrated; treatment facilities have been provided that did not exist before, and the group of doctors are educating themselves in cancer diagnosis and treatment in a practical and effective way. An excellent example are the train of results which inevitably flow from the group method of cancer attack.

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Clarence G. Toland, M. D. (1930 Wilshire Boulevard, Los Angeles).—Cancer institutes and cancer clinics have existed for some years in the urban centers, but their influence has not appreciably penetrated beyond the metropolitan areas. The more recently organized cancer-study groups in the rural districts have contributed greatly to bridging this gap.

The Riverside County group, and in fact all rural groups, certainly function under material handicaps; and great credit is due these men who tolerate inconvenience and, in spite of inadequate equipment, persist in maintaining an efficient effective organization for cancer control.

Group opinion in cases with malignancy is obviously of great immediate value to the unfortunates who present themselves for examination. Unquestionably, they receive diagnostic service and advice concerning therapy superior to that rendered by their individual doctor. This fact alone more than justifies the existence of the cancer clinics, and makes the efforts of the group members worth while. It is this concern for his own welfare that directs the patient to the group. It is doubtful if his interest extends beyond to the broader, more important, greater educational benefits that are rendered by these groups to their community, and to cancer patients as a whole.

Progress in the campaign effectively to reduce the mortality and suffering from cancer is materially stimulated by the presence of cancer clinics in the smaller communities. The members of these groups are to be highly commended for the enthusiasm and coöperative spirit displayed in these centers. May the success of the Riverside County Cancer Clinic encourage the establishment of cancer-control organizations in other less fortunate rural districts!

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Dr. Dorr (Closing)—It may be of interest to append here a summary of work of the Riverside County Study Group:

Summary of Work

Riverside County Cancer Study Group for Year Ending September 30, 1935

Total cases examined		119
Diagnosed nonmalignant		52
Diagnosed malignant		67
By biopsy	44	
Clinically	23	
Classification:		
Sarcoma		5
Carcinoma		59
All others		3
Total		67

Locations:	
Skin—Face	20
Extremities	6
Mouth	3
Pelvis	12
Abdomen—Gastro-Intestinal Tract	4
Liver	1
Rectum	1
Prostate	4
Chest—Lung	2
Breast	10
Bones	4
Total	67
Treatments:	
Surgery	10
Cautery	20
X-ray	9
Radium	3
Palliative	22
None	11
Total	75
Miscellaneous Statistics:	
Oldest patient	80 yrs.
Youngest patient	14 yrs.
Average age	56.6 yrs.
Number of deaths	16
Number with metastases	17

ACUTE PERFORATION OF PEPTIC ULCER*

AN EVALUATION OF DIAGNOSTIC SYMPTOMS AND SIGNS

By Harold Lincoln Thompson, M.D.
Los Angeles

Discussion *by Wayland A. Morrison, M. D., Los Angeles; Edmund Butler, M. D., San Francisco; E. Eric Larson, M. D., Los Angeles.*

THE typical case of acute perforation of peptic ulcer, which is seen early in its course and is complete with a history of previous dyspepsia, characteristic symptoms and classical physical signs, does not present an extremely difficult diagnostic problem. In fact, the diagnosis in typical cases is so easy that a mistake is usually the result of inexperience, haste or oversight on the part of the physician. Despite the ease with which the diagnosis may be made in typical cases, there is a varying proportion of cases which in one or more respects are atypical, and in these the establishment of a working diagnosis is exceedingly difficult. Published figures on the diagnostic error in acute perforation of peptic ulcer indicate that, on the whole, diagnosis is improving with experience in this condition. For example, the error in diagnosis in the series collected by Moynihan [1] in 1901 was as high as 36.7 per cent, whereas in the group published by Poole and Dineen [2] in 1922 it was only 11.8 per cent. Accumulated experience, moreover, has enabled us to classify the cases of acute perforation of peptic ulcer on the basis of clinical course into several fairly easily recognized groups. The largest group is comprised of the so-called typical cases. There does not appear to be any definite knowledge, however, concerning the size of this group or a consensus of opinion on how large a proportion of cases compose the atypical group. In view of the difficulty in diagnosis in a proportion of cases which generally is acknowledged to be considerable, this clinical study was undertaken in an effort to determine the relative values of the several subjective symptoms and physical signs which are diagnostic of acute perforation of peptic ulcer.

CLINICAL MATERIAL FOR THIS STUDY

This study was made from the clinical records of five hundred cases of peptic ulcer, complicated by perforation, in which the clinical features were of the acute form. The important clinical features have been evaluated and interpreted in terms of the percentage of cases in which each feature was present. The analysis discloses that the atypical cases vary not only with respect to clinical course, but also with respect to important diagnostic symptoms and signs. That is to say, in addition to the groups which are recognized on the basis of clinical course, there is a remaining group consisting of cases which, in one or more particulars, do not conform to any group now recognized, and in which, therefore, the diagnosis is especially difficult.

SO-CALLED CLASSICAL CASE OF ACUTE PERFORATION

In the so-called classical case of acute perforation of peptic ulcer the history reveals that for some time the patient has been more or less disabled by a characteristic type of recurring dyspepsia. Then suddenly and unexpectedly he is stricken with epigastric pain so severe that it seems beyond endurance. On examination, soon after the onset of pain, the patient's face is pale and moist with perspiration, while his features clearly express his suffering; whereas the respiratory rate is rapid, the pulse is retarded, and the temperature is subnormal. The abdomen is tender throughout. The abdominal muscles are extremely tense, and on palpation they manifest a peculiar quality of rigidity which has been described as boardlike. After the pain has persisted for a brief interval, a general condition of prostration, closely resembling shock, supervenes. Unless relieved by massive doses of morphin or by anesthesia and surgical intervention, this clinical picture persists without remission until, after a few hours, the features of diffuse peritonitis appear. Following the supervention of this untoward sequel, death follows in a few days.

METHOD OF STUDY IN THIS ANALYSIS

This study was conducted on the clinical records of the cases of gastric and duodenal ulcer, complicated by perforation, which were observed at the Los Angeles County General Hospital between September 9, 1921, and June 30, 1934. During this period, five hundred patients were observed in whom the clinical features were manifest in the acute form. In 98.2 per cent of the patients the diagnosis of perforated peptic ulcer was confirmed either by operation or by autopsy. Included in the study are nine cases, comprising 1.8 per cent of the total number, in which the history and physical findings were so typical as to exclude all reasonable doubt concerning the clinical diagnosis. On the other hand, patients neither

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* From the Department of Surgery of the University of Southern California Medical School.

Read before the General Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

CHART 1.—*Chart Containing Important Data Concerning the History of Ulcer Type of Dyspepsia.*

HISTORY OF ULCER DYSPEPSIA
As Recorded in 419 Cases

History	Percentage of Cases
History of ulcer given	76.1
History of ulcer denied	23.8

operated upon nor examined postmortem, in whom there existed any question regarding the authenticity of the clinical diagnosis, were not included in this study. Most of the patients were seen by a referring physician before admission to the hospital. After admission they were seen by three or more physicians on the hospital staff, including the admitting physician, one or more house physicians and the consulting physician or surgeon, all of whose observations are included in the clinical records. The important diagnostic features obtained from the clinical notes on each case were tabulated for study with respect to four or more points of interest, namely, (1) whether or not the clinical feature was mentioned in the case record, if mentioned (2) whether it was present or (3) whether it was absent, and (4) the degree in which it was manifest when first noted by a practicing physician. From the data compiled in this manner, it has been possible to evaluate on a percentage basis the features of diagnostic importance which are encountered in acute perforation of peptic ulcer.

RESULTS

History of Ulcer Type of Dyspepsia.—The clinical notes in the majority of the cases in this series indicate that inquiry was made into the past history of the patient for the purpose of determining the preëxistence of dyspepsia of the so-called ulcer type (Chart 1). Vague, indefinite or atypical symptoms of dyspepsia were not classed as belonging to the ulcer type. On the contrary, in this study, in order to be accepted as typical of ulcer, it was required that the distress answer the established criteria with respect to location, relation to meals, relief and periodicity, which are characteristic of peptic ulcer. On this basis the patient was questioned concerning ulcer symptoms in 419 cases. It was found that in these cases typical ulcer symptoms had preceded acute perforation of the ulcer in 76.1 per cent. Ulcer symptoms did not precede perforation in 23.8 per cent of cases.

CHART 2.—*Chart Containing Data Concerning the Significant Features of Primary and Referred Pain.*

PRIMARY PAIN
(Onset of Pain as Recorded in 455 Cases)

Type of Onset	Percentage of Cases
Sudden	92.3
Gradual	7.6

(Degree of Pain as Recorded in 481 Cases)

Degree	Percentage of Cases
Intense	79.8
Moderate	17.4
Mild	2.7

(Location of Pain as Recorded in 476 Cases)

Location	Percentage of Cases
Upper abdomen	58.4
General abdominal	27.5
Lower abdomen	12.1
Mid-abdomen	1.8

REFERRED PAIN
(Region to Which Pain Was Referred as Recorded in 128 Cases)

Region	Percentage of Cases
Shoulders	89.8
Back	10.1
Thorax	0.0

CHART 3.—*Chart Containing Significant Features Regarding Temperature, Pulse and Respirations.*

TEMPERATURE, PULSE AND RESPIRATION
As Recorded in 469 Cases

Temperature	Percentage of Cases
Normal or subnormal	68.6
Elevated (fever)	31.3

Pulse Rate	Percentage of Cases
Normal or subnormal	74.8
Rapid	25.1

Respiratory Rate	Percentage of Cases
Normal	37 6
Rapid	62.3

Pain.—The character of the onset of pain was recorded in 455 cases (Chart 2). The onset was described as sudden in 92.3 per cent of cases. From the reports in 481 cases in which the degree of pain was recorded, it was found to be intense in 79.8 per cent, moderate in 17.4 per cent, and mild in 2.7 per cent. The location of the primary pain was recorded in 476 cases. It was situated in the upper abdomen in the largest proportion of cases, namely, 58.4 per cent. In the next largest group, comprising 27.5 per cent of cases, it was distributed generally throughout the abdomen. In 12.1 per cent pain was localized in the lower abdomen, and in the remaining 1.8 per cent, in the mid-abdomen.

Pain referred to distant regions of the body was reported in 128 cases (Chart 2). It was referred to one or both shoulders in 89.8 per cent, and to the back in 10.1 per cent, but it was not referred to the thorax in any of the cases.

Temperature, Pulse, and Respirations.—The degree of the temperature and the rates of the pulse and respiration of the patients on admission to the hospital were recorded in 469 cases (Chart 3). The temperature was normal or subnormal in 68.6 per cent of cases, whereas fever was present in but 31.3 per cent. Normal or subnormal pulse rate was present in 74.8 per cent of cases, whereas rapid pulse rate was present in only 25.1 per cent. In contrast to these, the respiratory rate was accelerated in 62.3 per cent of cases.

CHART 4.—*Chart Containing, for Comparison, Important Data Concerning the Existence of Shock as Determined by the General Appearance of the Patients, and by Blood Pressure Readings.*

SHOCK
Based on the Appearance of the Patients
As Recorded in 92 Cases

Appearance of Shock	Percentage of Cases
Present	72.8
Absent	27.1

Determined by Blood Pressure Readings
As Recorded in 364 Cases

Blood Pressure	Percentage of Cases
Subnormal (shock)	19.2
Normal or above	80.7

Shock.—In the literature, as well as in clinical records, shock frequently is mentioned as a prominent feature in acute perforation of peptic ulcer. The term usually is employed loosely to describe the general appearance of the patient whose skin is pale, moist and cold, without special reference to the patient's blood pressure. In order to illustrate the discrepancy between the loose and the strict use of the term "shock," a comparison was made between the number of cases in which, on the basis of appearance, it was recorded as present, and the number in which it was found to be present, on the basis of blood pressure determinations. Employed in the loose sense, shock was mentioned in the records of ninety-two cases (Chart 4). In 72.8 per cent of these cases it was recorded as present. The blood pressure was taken on admission in 364 cases. It was found to be normal or above in 80.7 per cent of cases, and subnormal in but 19.2 per cent. These results indicate, therefore, that when shock is said to be present in a given case of acute perforation of peptic ulcer, it must not be accepted as being present until the criteria by which it was determined are scrutinized.

Abdominal Rigidity.—The degree of rigidity of the abdominal muscles was noted in 449 cases (Chart 5). In 69.3 per cent it was described as of extreme degree. Moderate rigidity was present in 23.4 per cent, and slight rigidity in 7.1 per cent of the cases.

Liver Dullness. — Mention of examination of the thorax and abdomen for modifications in the normal area of liver dullness was made in 147 cases in this study (Chart 5). Absence or diminution of liver dullness was detected, however, in only 25.1 per cent of the cases in which it was mentioned.

Leukocyte Count.—The leukocyte count of the blood was recorded in 345 cases in this series (Chart 6). The count was high in 84.3 per cent of cases, and normal or low in 15.6 per cent.

Intraperitoneal Air.—While it is of considerable confirmatory value in the diagnosis of perforated hollow viscus, roentgenologic examination of the abdomen, for free intraperitoneal air, was conducted in a very small proportion of cases in this series (Chart 6). Of the thirty-five cases in which it was performed it was present in 42.8 per cent.

CHART 5.—*Charts Containing Essential Data Concerning the Rigidity of the Abdominal Wall and the Modifications of Liver Dullness.*

RIGIDITY OF ABDOMINAL WALL
As Recorded in 449 Cases

Degree	Percentage of Cases
Extreme	69.3
Moderate	23.4
Slight	7.1

MODIFICATIONS IN LIVER DULLNESS
As Recorded in 147 Cases

Liver Dullness	Percentage of Cases
Diminished or absent	25.1
Unmodified	74.8

COMMENT

In this paper the effort has been made to ascertain the broad clinical features of diagnostic importance in acute perforation of peptic ulcer, and to determine their relative value. The classification of cases, with respect to type, stage or degree of severity, must be deferred for a later communication.

History of Ulcer Type of Dyspepsia. — This study has revealed the proportion of cases in which prior to perforation dyspepsia of the ulcer type existed. Its presence in 76.1 per cent of cases indicates that it is available as a diagnostic aid in three out of four cases, provided questioning of the patient is pursued with regard to situation, relation to meals, relievability and periodicity of distress sufficiently to differentiate it from other types of dyspepsia. This figure is large enough to emphasize its importance as a clue in diagnosis. On the other hand, its absence in a proportion of cases as great as one in four, is sufficient to impress one with the fact that in the presence of other convincing symptoms perforation cannot be excluded in a given case simply because a history of ulcer dyspepsia is lacking.

Pain.—The present study confirms the prevailing impression that pain is the most important, as well as the most prominent symptom in acute

CHART 6.—*Charts Containing Data Concerning the Significant Laboratory Findings.*

LABORATORY FINDINGS
LEUKOCYTE COUNT
As Recorded in 345 Cases

Leukocyte Count	Percentage of Cases
High (leukocytosis)	84.3
Normal or low	15.6

FREE INTRAPERITONEAL AIR
As Recorded in 35 Cases

Free Intraperitoneal Air	Percentage of Cases
Present	42.8
Absent	57.1

perforation of peptic ulcer. The fact that one or more features of the pain were mentioned, in so large a proportion as 96.2 per cent of cases, is in itself significant of its importance. While the onset, location, degree, and region of reference are four important characteristics of the pain, the study indicates that the features which chiefly distinguish the pain in perforated ulcer, from that produced by other causes, are the suddenness of the onset and the intensity of the degree. Whereas, in a few instances, the onset of pain is heralded by minor premonitory symptoms, in 92.3 per cent of cases the onset is so sudden and occurs with so little warning, that the patient, prior to the appearance of pain, considers himself in usual health and continues to occupy himself with his normal activities. Common terms which patients use in describing the quality of the pain are bursting, cutting or piercing, while they characterize it as terrible, agonizing or intolerable in degree. In addition, the study discloses that the location of the pain is never pelvic; that in a small percentage of cases it is mid-abdominal, in a somewhat larger proportion of cases it is lower-abdominal, and in a still larger proportion it is general throughout the abdomen, whereas, in the largest percentage, it is upper-abdominal or epigastric. Rarely pain is referred to the back, but the study discloses that when referred pain is present it is referred to the shoulders in 89.8 per cent of cases. These are points to be borne in mind in differentiating perforated ulcer from acute appendicitis, cholecystitis or cholelythiasis. Thus a study of the characteristics of the pain is a valuable aid in differentiating the diseases which are most commonly confused with perforated peptic ulcer.

Temperature, Pulse, and Respiration.—The reactions of the temperature of the body, the pulse and respiration to acute perforation of peptic ulcer are perhaps the most deceiving of any of the clinical signs. Acute appendicitis, in contradistinction, usually is associated with slightly elevated temperature and pulse rate, but not necessarily an increase in respiratory rate. After the appearance of extensive peritonitis as a complication of perforation, the reactions typical of some of the other acute intra-abdominal conditions are manifest. According to the results of this study, if the physician were to defer his diagnosis of acute perforation until the type of reaction appears which is seen in other acute conditions within the abdomen, either he would be in error in from 62 to 75 per cent of cases, or he would be responsible directly for unnecessary delay in the application of treatment.

Shock.—In the early stage of acute perforation of peptic ulcer many of the superficial features noted closely resemble shock. These features include pallor, cold, moist skin and subnormal temperature. Whereas these features usually are present in shock, they are not the important criteria of the existence of that condition. As is well known, surgical shock is essentially a condition of subnormal peripheral circulation, the chief index of which is low blood pressure. As the present study indicates, surgical shock *per se* is not present in the early stages of acute perforation of peptic ulcer. In complicating general peritonitis, however, the supervention of surgical shock takes place as a late condition of the utmost gravity.

The features which are misleading in regard to the presence of shock may be explained on a different basis from that which obtains in surgical shock. Owing to the absence of diaphragmatic and abdominal breathing, and notwithstanding the compensatory rapid rate of thoracic respiration, the pallor or livid color of the skin is a direct result of incomplete aeration of the blood. Thus in acute perforation of peptic ulcer the pallor is respiratory, whereas in surgical shock it is circulatory. The subnormal temperature of the body results from the cooling effect of the excessive perspiration. In early acute perforation an increase in metabolism, with its increased generation of heat, is not present. Since evaporation is a cooling physical process, and since there is no increase in body heat, the temperature of the body necessarily must fall below normal. In these cases, therefore, excessive perspiration does not have the usual heat regulating significance which obtains in the normal physiologic state. Rapid pulse, which is a prominent feature of surgical shock, by contrast is shown through this study not to be present in typical early acute perforation.

These important facts are borne out despite the inclusion in this study of cases in the late stages of general peritonitis. An investigation of shock was included in order to emphasize the fact that, with reference to acute perforation of peptic ulcer, the term is commonly misused. From the results of this phase of the study, the distinction is clearly drawn between shock, as the term is applied loosely to the general appearance of the patient, and as it is properly used according to established clinical criteria.

Abdominal Rigidity.—The most striking observation to be made on physical examination of the patient with acute perforation of peptic ulcer is the rigidity which is manifest by the abdominal wall. Everywhere the muscles are characteristically firm and nonresilient. The resistance which they offer to the palpating hand is of a peculiar wood-like firmness, hence the application of the descriptive term "board-like." This taut condition of the muscles is involuntary, unremitting, and obstinate. It does not relax with the respiratory movements because, as pointed out above, respiration is exclusively thoracic.

Liver Dullness.—A sign, which occasionally is to be found on examination, is diminution or obliteration of the normal liver dullness. The objection has been raised that, when present, this sign is not pathognomonic of perforated ulcer. However, since the normal dullness of the right lobe of the liver is constant and easy to determine, any marked modification in it should be a helpful diagnostic aid. The modifications in liver dullness are caused by the escape of air into the peritoneal cavity. On rising to the dome of the diaphragm, the air forms a typmanitic layer between the liver and the body wall. If this sign were looked for in every patient with a suspected perforated peptic ulcer, probably it would be found in only a small proportion of cases, It is, nevertheless, a valuable confirmatory diagnostic sign when present.

Laboratory Findings.—Whereas in the past the leukocyte count was relied upon greatly in the diagnosis of acute conditions in the abdomen, it currently is believed to be of less value because the information which it yields is not specific for any given disease. Provided coexisting causes of leukocytosis can be ruled out in a given case, the leukocyte count may be of value in differentiating noninfectious conditions, such as tabetic crisis or renal colic.

Free intraperitoneal air, demonstrable by x-ray, like diminution of normal liver dullness, while not pathognomonic of perforated peptic ulcer, is a valuable sign when present, and when the question of differentiating perforation of hollow viscus from other causes does not exist.

SUMMARY AND CONCLUSIONS

In the present analysis of the subjective symptoms and physical signs recorded in five hundred cases of perforation of peptic ulcer observed in the acute stages, the clinical features are found to fall into two general groups: first, those which are of primary diagnostic importance, and second, those which are of secondary or confirmatory value in diagnosis. The features of the first group are found to have been deemed worthy of record at the time the clinical notes were made in approximately 90 per cent of cases. The features are, in the order of their value, sudden pain, severe pain, a history regarding preëxistence of ulcer type of dyspepsia, and extreme rigidity of the abdominal musculature (Chart 7). When it is revealed, moreover, that the positive or significant aspects of these features were observed in approximately 70 per cent of cases, their importance is enhanced.

The features of the group of symptoms of secondary or confirmatory value were recorded in percentages of cases ranging from 7.0 to 93.8 per cent. In the order of their value, these features are: pain referred to the shoulder, leukocytosis, normal or subnormal temperature and pulse, roentgenologic evidence of free intraperitoneal air, and modified liver dullness. The fact that these are positive or otherwise significant in as high as 89.8 per cent of cases—as, for example, pain referred to the shoulder—is indicative of their importance as confirmatory features. On the other hand, the fact that a confirmatory sign is present in only 25.1 per cent of cases—as, for example, diminished liver dullness—does not detract from its importance when it is present.

Chart 7.—*Charts Containing Data Concerning Primary and Secondary Diagnostic Features. The Left Column Contains the Significant Aspects of the Diagnostic Symptoms and Signs. The Middle Column Contains the Number and Percentage of Cases in Which Notes Regarding the Symptoms or Signs Were made in the Records. The Right Column Contains the Percentage of Cases in Which the Feature Was Present.*

DIAGNOSTIC FEATURES
PRIMARY DIAGNOSTIC FEATURES

Symptom or Sign	Cases in Which Recorded		Percentage of Cases in Which Present or Marked
	Number of Cases	Percentage of Cases	
Pain:			
Sudden	455	90.1	92.3
Severe	481	96.2	79.8
History re ulcer	419	83.8	76.1
Abdominal rigidity	449	89.8	69.3
CONFIRMATORY DIAGNOSTIC FEATURES			
Referred pain	128	25.6	89.8
Leukocytosis..	345	69.0	84.3
Temperature and Pulse: Normal or subnormal	469	93.8	68.6 to 74.8
Intraperitoneal air	35	7.0	42.8
Liver dullness	147	29.4	25.1

On recapitulation, it may be said that there exists, in cases of acute perforation of peptic ulcer, a clinical picture which is typical and characteristic. In nearly 90 per cent of cases the history, pain and rigidity of abdominal muscles are worthy of note. In nearly 70 per cent of cases these features are positive or, in addition, are manifest in so marked a degree as to be of primary diagnostic significance. Not to be overlooked, however, is a second fact disclosed by this study, namely, that none of the individual primary or secondary symptoms or signs are present in 100 per cent of cases. In a single given case, therefore, it theoretically is possible for the clinical picture to be composed entirely of symptoms and signs which, statistically, are of rare occurrence. A composite clinical picture of such a case would be not unlike the average case of acute appendicitis which, as has been suggested, is the condition most commonly confused with acute perforation of peptic ulcer. It is apparent, therefore, that in the diagnosis of acute conditions within the abdomen, acute perforation of peptic ulcer always must be considered as a possibility, so that operative procedure can be planned in such a way as to enable the surgeon to deal with it in case it is found to be present.

1930 Wilshire Boulevard.

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DISCUSSION

Wayland A. Morrison, M. D. (523 West Sixth Street, Los Angeles).—A statistical study of a large number of cases, such as Doctor Thompson has described, is of prime importance and can only be obtained in a large general hospital. This aptly illustrates the importance of careful history notes even in cases of severe emergencies.

The clinical picture of ruptured ulcer is usually, as he has shown, fairly diagnostic. There are cases, however, which simulate other acute conditions. At autopsy in these cases, it is not uncommon to find that death was caused by peritonitis from ruptured peptic ulcer and that the secondarily inflamed appendix had been removed because it was thought to be the origin of the peritonitis. It behooves the surgeon, therefore, to make an incision which provides adequate exposure and which can be enlarged easily. In my opinion, small, muscle-splitting incisions should never be used in the so-called "acute abdomen."

Doctor Thompson states that almost 24 per cent of this series did not give a previous history of ulcer. In my own series, I believe this per cent is much higher. It is apparently the acute, fulminating ulcer that perforates.

Another condition which occasionally gives the same typical picture Doctor Thompson described, and which should be kept in mind, is an atypical case of coronary thrombosis. It is a patient of this type who will sometimes die on the operating table before or during the operation.

Statistical studies of this type, especially in the larger institutions, should be encouraged. The data are accurate, educational, and of great aid in the proper diagnosis of future cases.

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Edmund Butler, M. D. (490 Post Street, San Francisco).—Doctor Thompson has presented a carefully prepared paper and has accurately evaluated the symptoms. The percentages given, I feel, will hold in any series of cases where peptic ulcer has the general characteristics, as is found in this part of the world. The extensive indurated type of peptic ulcer frequently occurring in Central Europe may give different symptom percentages.

Those of us who are more or less familiar with the intra-abdominal catastrophies hope always to keep mindful of the bizarre picture resulting from a perforation of a chronic peptic ulcer when many adhesions are present. The typical picture of perforated peptic ulcer seldom fails to create anxiety on the part of all concerned. There is often a feeling of well-being by the patient, with beginning septic peritonitis, occurring four to six hours after perforation. This period is marked by the greatest dilution of escaped gastric contents by a profuse peritoneal exudation. This apparent improvement is often misleading to the physician.

Some arrangement should be made for giving a greater number of doctors and medical students the opportunity to observe and examine acutely ill patients of this type. So often these patients enter the county hospital late at night, and only the interne and the resident on the service are privileged to examine and diagnosticate.

I have often stressed the taking of an upright film in all patients presenting an intra-abdominal catastrophy. Not infrequently free air is discovered, and leads to a diagnosis of a perforated ulcer where, up to that time, an ulcer had not been suspected. Free air is present in a variable number of cases, possibly 65 per cent, but is a positive finding, and precludes watchful waiting and prolonged discussion.

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E. Eric Larson, M. D. (1930 Wilshire Boulevard, Los Angeles).—The essayist has done a large amount of work in gathering statistics relative to the more accurate diagnosis of acute perforation of peptic ulcer, a complication that, without question, demands immediate and accurate diagnosis and no delay in surgical interference.

The primary diagnostic features are those of sudden severe pain, with an unmistakable rigidity of the abdominal muscles; and in 76 per cent of cases an antecedent history of peptic ulcer, as shown by Doctor Thompson. There are several intra-abdominal catastrophes to which these cardinal symptoms are prominently attached. Some instances of ruptured appendicitis and the bite of the Latrodectus mactans spider, as well as acute perforation of the gallbladder with choleperitoneum, must be differentiated from this condition.

Doctor Thompson has compiled statistics relative to the confirmatory diagnostic features, which, if rigidly studied and studiously applied, eliminates the factor of error in the diagnosis in a very high percentage of cases. The leukocytosis, which in 84.3 per cent of cases, as Doctor Thompson's statistics show is high, and the referred pain spoken of in the essay with the x-ray evidence of intraperitoneal air bubble, should all assist in making a proper diagnosis.

⁂

Doctor Thompson (Closing).—In the light of their clinical experience, the observations made by the discussers of this paper emphasize the practical value of certain statistical findings of this report. As is well known, a matter of frequent comment among surgeons who deal with these cases is that a considerable number of acute perforations occur in patients who do not give a history of previous ulcer symptoms. Prior to making this study, my own impression, to the effect that this situation obtained in more than 24 per cent of cases, was in agreement with that expressed by Doctor Morrison. It is very illuminating, therefore, to ascertain from this study that a history not merely of dyspepsia, but of dyspepsia possessing the location, relation to meals, periodicity, and relievability, which is characteristic of peptic ulcer, was obtained in so large a number as 76 per cent of cases.

Doctor Butler's remark regarding the value of intraperitoneal air in diagnosis also is well taken. I regret that this valuable diagnostic sign was not utilized in more than thirty-five cases in this study. However, it is significant that it was positive in 43 per cent of the cases in which it was used. Doctor Morrison's mention of coronary thrombosis and Doctor Larson's reminder that perforative appendicitis, poisoning from the bite of the black widow spider, and perforation of the gall-bladder with choleperitoneum should not be overlooked in differential diagnosis, are all valuable additions to this paper.

THE TRAUMATIC STATE*

By Edmund Butler, M.D.
San Francisco

Discussion *by Alanson Weeks, M.D., and G. D. Delprat, M.D., San Francisco; H. S. Chapman, M.D., Stockton.*

During the last fiscal year, 67,048 patients were treated in the San Francisco Emergency Hospitals, 47,376 of these being surgical. Of the entire group, 13.7 per cent were classified as having extensive and severe injuries. The complete diagnosis in cases of multiple injuries is very difficult. The injury that for a time does not give recognizable symptoms, or in which symptoms may have been overshadowed by the more remarkable symptoms of the other injuries, may cause the patient's death. Because of the multiplicity of injuries, it becomes necessary for traumatic surgeons to know something about head injuries, thoracic injuries, abdominal injuries, and injuries of the extremities.

TRAFFIC ACCIDENTS

A recent English survey of automobile accidents showed that there were twice as many accidents in the cities as occurred in the country, but that there were twice as many deaths in the country as occurred in the city. This was attributed to the speed of the automobiles at the time of the accident. In 1934 there were over 36,000 deaths from traffic accidents in the United States. It is my opinion that many lives may be prolonged by judicious surgery performed by intelligent courageous surgeons.

Extradural Hemorrhage.—Le Conte reported five hundred autopsies following deaths from head

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* Read before the General Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13 to 16, 1935.

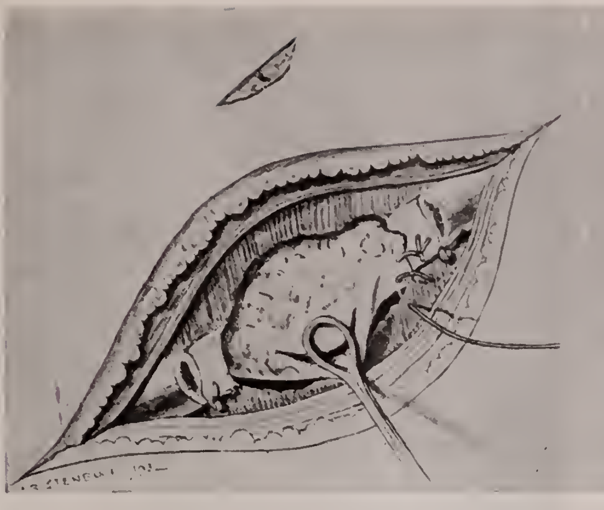

Fig. 1

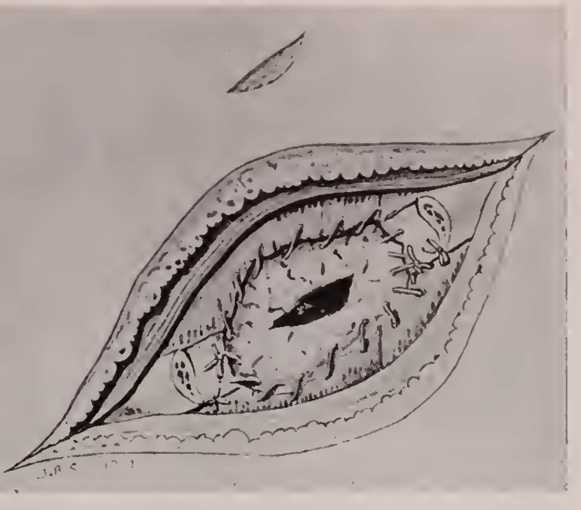

Fig. 2

Fig. 1.—Injured lung pulled into thorocotomy opening. Beginning of suture approximating parietal pleura and visceral pleura.
Fig. 2.—Completion of suture, no sucking of air; injured lung in position for efficient drainage.

injuries, and of these 50 per cent had sufficient extradural hemorrhage to be a factor in their deaths. Extradural hemorrhage is one of the conditions which is amenable to operative intervention. Every traumatic surgeon should be able and equipped to elevate depressed fractures, control hemorrhage, and remove a clot resulting from middle meningeal hemorrhage. The x-ray will locate the fracture, and the symptoms of increasing unilateral pressure should indicate early exploration.

Jaw Injuries.—Occasionally, crushing injury of the lower jaw and larynx call for immediate action. Intubation with the catheter airway, or tracheotomy are the procedures that will prolong life. Every emergency grip should contain one of these airways (or life-savers), and a tracheotomy set.

Chest.—There are certain injuries of the chest that may prove rapidly fatal, which occur more often than is generally believed. First and the most insidious is the closed pneumothorax resulting from rupture of the lung. The air escapes into the pleural space, causing positive pressure and later mediastinal shift, and finally collapse of the uninjured lung. A valve-like wound of the chest, allowing air to enter but not to escape, may also prove rapidly fatal. Both conditions call for release of the air from the pleural space.

If the collapse of the chest is due to the loss of bony support, as happens when the sternum is completely separated from the ribs or when a large section of the chest wall is loose, external fixation is required. If the sternum is at fault it may be fixed by grasping the sternum with towel clips and attaching to a frame over the chest. If a section of the rib cage is loose it may be fixed by passing wire, silk, or silk gut sutures, so as to include part of the rib and tie to a curved metal frame over the chest.

Lung Collapse.—The collapse of the lung, due to intrapleural hemorrhage, may call for early aspiration and control of the hemorrhage from the intracostal or internal mammary vessels, or from the vessels of the lung. The embarrassment that results from rupture of the diaphragm and the entrance of the abdominal viscera into the left pleural space will become adjusted if the other injuries are not too extensive.

Stab and Gunshot Wounds.—Stab wounds and gunshot wounds of the chest causing hemorrhage or sucking wounds call for exploration, control of hemorrhage, and exteriorization of the injured lung, as described by Conners and Stenbuck. (Figs. 1 and 2.)

Rupture of the Hollow Abdominal Viscera.—Rupture of the hollow abdominal viscera is very difficult of early diagnosis, particularly if the patient is alcoholic or in deep shock. The higher the rupture in the intestinal tract the easier the diagnosis, as stomach and upper bowel content are very irritating and cause a great amount of pain. Lower ileum and colon contents are less irritating but far more dangerous because of the virulent bacteria flora. The one extraperitoneal injury of hollow viscera that we must be continually suspecting is a retroperitoneal tear of the duodenum, most often produced by striking the steering wheel or steering post during an automobile collision. This injury gives symptoms similar to those of pancreatitis, sometimes with severe pain in the testicles. Later in the course of the injury retroperitoneal emphysema may be palpable by rectum.

One rather unusual rupture of the hollow viscera following crushing injuries of the abdomen (the crushing may be in the upper abdomen) is a tear in the anterior wall of the rectum, which must be the result of explosive forces due to compression of the gases in the lower colon. This was found in two patients during the last two years; in one it was found during autopsy, and in the other it accompanied a rupture of the small bowel and was sutured, resulting in recovery.

Rupture of the Urinary Bladder.—Rupture of the urinary bladder is much more frequent than a great many people are willing to believe. Rupture of the urinary bladder may cause few symptoms, and in the presence of multiple soft tissue injury or bone injury, is so easily overlooked. It is an order in the San Francisco Emergency Service that every deeply alcoholic or shock patient coming into the hospital shall be catheterized as soon as possible. In the emergency service there have been more than twenty ruptures of the bladder operated upon during the last five years, and I feel that possibly many more have slipped by and have been a factor in death of the individual. Less than 5 per cent of the ruptures of the bladder are due to fractures of the pelvis, and 40 per cent are due to automobile accidents. The remainder result from crushing injuries and falls, as is stated by Tarnowsky. It is not unusual to inject 300 cubic centimeters of saline solution and remove 700 cubic centimeters or more of fluid. In such cases the catheter sticks through the rupture in the bladder, and siphons out urine and saline which are free in the pelvis. Several patients have voided bloody urine when radiograms showed that the urine was free in the pelvis. The test I believe that should be used in all of these patients is this: if the urine contains blood, or no urine is removed by catheter, there should be injected 300 to 500 cubic centimeters of 5 per cent sodium iodid, and a radiogram made. This will show if the solution is confined to the bladder or soft parts (Fig. 3). Air also may be injected into the bladder and after a few moments this air may be found under the diaphragm if an intraperitoneal rupture of the bladder is present.

Rupture of the Liver, Spleen, and Kidney.—Rupture of the liver, of the spleen and of the kidney must always be suspected following an injury where great traumatizing force has been expended. A kidney injury may be slight, subcortical tears or contusions producing a few red cells in the urine. The increase of pain in the flank, and the persistence of bloody urine should suggest that an extensive laceration of the kidney may be present. Perirenal hemorrhage usually displaces the ascending or descending colon toward the midline. If the bleeding continues and the patient shows evidence of exsanguination, exploration of the kidney is imperative. Where it is difficult to rule out intra-abdominal injury, exploration through a transverse incision, beginning at the edge of the rectus and extending into the flank, is the incision of election. It is very easy to remove a kidney through this type of incision; the kidney is retracted toward the abdominal aorta tending to relax the pedicle, rather than away from it, as is usual in the posterior incision. Following the removal of one kidney, I have been rather reluctant to do a transfusion, anurea having occurred twice following transfusion.

The treatment of rupture of the liver, if it is possible to rule out rupture of the kidney or the spleen, is expectant. Bleeding from large lacerations may cease if the patient is allowed to remain in a state of low pressure and complete rest. Intravenous solutions, heart stimulants, and blood-pressure raising agents are contraindicated. If exsanguination is imminent, blood transfusion must be performed. If exploration is performed, bleeding from the liver may be controlled by compressing the hepatic artery and the portal vein in the gastrohepatic omentum between the index finger and the thumb, with the index finger in the foramen of Winslow. A springy gastro-intestinal clamp, the blades guarded by rubber tubing, may be used for compression of these vessels.

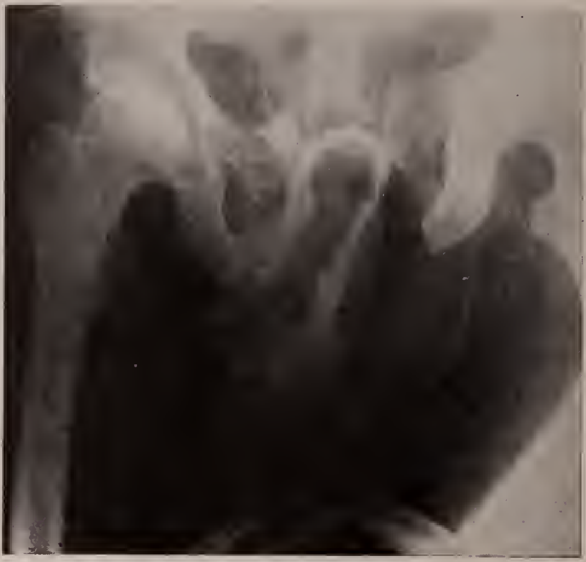

Fig. 3.—Catheter escaped through torn urethra into cellular tissue of scrotum. Shadow of 5 per cent sodium iodid in scrotum, none in the bladder or pelvis.

Unless the spleen is comminuted, hemorrhage is slow and often three or four days may pass before the symptoms are alarming. The leukocytosis, upper abdominal distress, pain in the supraclavicular regions, and the constant drop in hemoglobin should suggest intra-abdominal bleeding. Autotransfusion in rupture of the liver and spleen is life-saving, and when there is no contamination from gastro-intestinal contents, should be performed. A 1,000 cubic centimeter graduate, containing 100 cubic centimeters of two and one-half per cent sodium citrate, and a dipper, are all the equipment that is necessary for the collection of the blood.

Tears in the Mesenteric Vessels.—Tears in the mesenteric vessels are difficult of diagnosis; but the signs of intra-abdominal hemorrhage are present, and exploration should be indicated.

Lacerated Wounds in General.—Lacerated wounds, in general, must be considered potentially contaminated with aerobic and anaerobic bacteria. A thorough cleansing of the entire wound is important, together with enlargement of the skin wound if necessary, under local or general anesthesia. The tourniquet should be used until hemorrhage is controlled. The removal of all devitalized soft parts, and of all foreign material, is made easy by irrigation with weak peroxid solution. Use of antiseptics, after careful mechanical cleansing and irrigation, is of questionable value. Kock uses only sterile water and soap. Free use of iodin and many more modern antiseptics is advised by many writers; but too often the antiseptic solution is used freely without proper mechanical cleansing. If there is no crushing of soft parts and all foreign material has been removed, and if the injuring instrument is reasonably clean, the wound may be closed; but only in case you are going to have complete supervision of the patient. Garlock states "the writer is convinced that just as soon as the general practice of suturing lacerated wounds without drainage and without regard for elementary tension of tissue is stopped, the general incidence of infection will rapidly decline. This statement applies solely to the practice of suturing without preliminary cleansing and debridement." All wounds should be explored by the sterile gloved finger. In this way it is possible to locate splinters and other foreign material in the depths of the wound.

A careful watch must be instituted to detect early anaerobic infection. The following are the symptoms as outlined by Tenopyr:

1. Pain out of all proportion to the severity of the injury coming on twelve to thirty-six hours after the injury.
2. Acuteness of intellect.
3. Dirty, greenish-gray membrane over the area of the wound.
4. Characteristic odor.
5. Bronzing of the skin.
6. Reddish tinge, serous discharge.
7. Gas bubbles shown by x-ray, four to six hours after infection starts.

Weinberg cites an experience of 191 cases treated by gas gangrene serum, with twenty-five deaths, giving a mortality of thirteen plus per cent. The mortality in cases treated without serum was about 75 per cent. A large series of wounds of like nature, not prophylactically treated with gas gangrene antitoxin, gave 7.2 per cent cases of gas gangrene, while only four cases of gangrene occurred in 319 cases treated prophylactically. It is surprising how many cases of gas infection have been reported in which recovery has occurred in spite of inadequate surgical treatment where the serum treatment was administered.

The treatment of gas gangrene infection:

Prophylactic treatment.

1. The proper mechanical cleansing of lacerated wounds, infected wounds being left open and irrigated with Dakin's solution.
2. In all extensive wounds at least one therapeutic dose of polyvalent antigas gangrene antitoxin should be given, as well as the antitetanic serum.

Active treatment.

1. Large doses of polyvalent serum intravenously.
2. Free drainage should be instituted, and if the infection is found to be isolated to one muscle, this muscle should be removed.
3. If many muscle groups are involved, it may be necessary for an amputation to be performed; but under no consideration must the stump be closed. It must be left wide open, with free drainage.

In conclusion, I desire to stress the great value of the radiogram as an aid in the early diagnosis of the injuries of severely traumatized individuals.

490 Post Street.

DISCUSSION

Alanson Weeks, M. D., and G. D. Delprat, M. D. (384 Post Street, San Francisco).—Doctor Butler's paper could well be used as a textbook for the care of patients in the "traumatic state." His main thesis is the careful examination of the injured patient, both as to the immediate and obvious site of injury, and also as to the more remote areas that may increase in prominence and importance. This cannot be overemphasized. On the other hand, one of the first lessons a surgeon should learn in the care of the "traumatic state" is not to become panicky and overdo everything, which is so often the tendency; such as pumping fluid into one blood vessel while it leaks out of another, and operating before symptoms have developed sufficiently to guide the surgeon and make the operation justifiable. In other words, "give the patient a chance to do without you" in the well-marked limits shown in this paper.

Some of us still remember our experiences at the front in the last "war to end war," where gas-infection and gangrene were hideous realities in most of the wounded. We would suggest that the surgeon be alert for the following signs: lemon-yellow color of the skin; pulse elevated out of proportion to the temperature, and a characteristic mousey odor. Crepitation may be felt if the infection is in the superficial tissues, but cannot be felt if the gas is developing deep in a limb. These signs should make the diagnosis certain.

The improved mortality with use of serum shows brilliantly the advance of medical science in the last fifteen or twenty years. During the war, amputation well above the involved area was the only hope; although as the war ended, serum was just coming to be considered.

We have gone far also in the care of injuries to the brain. Some of us still remember the advice of one of our foremost brain surgeons, to open nearly all of these injuries; and we know now that only those with the specific indication of localized pressure or increasing hemorrhage should ever be so operated upon.

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H. S. Chapman, M. D. (305 Medico-Dental Building, Stockton).—Doctor Butler covers the field so thoroughly that he leaves little for comment. Each of his subjects has been well considered, and important points brought out. We who are connected with emergency hospitals see more of these cases than does the average person; however, with the ever-increasing number of automobiles, and the ever-increasing number of accidents, it behooves every man to be well grounded in the subjects discussed by Doctor Butler.

THE RÔLE OF THE GENERAL PRACTITIONER IN PRESENT-DAY MEDICINE

By Maurice B. Bonta, M.D.
Los Angeles

Discussion *by A. B. Cooke, M. D., Los Angeles; John W. Shuman, M. D., Los Angeles; J. Marion Read, M. D., San Francisco.*

THERE are today many currents and cross-currents in the practice of medicine. Just as with the ebb and flow of the tide upon the ocean's ever-shifting sands promontories disappear and new islets arise, so today we are witnessing rapid changes in the science and art of medicine.

IS THIS THE DAY OF SPECIALIZATION?

In recent years there have been heard all too frequently voices of those crying: "This is the day of specialization. The general practitioner is disappearing from the scene of action."

Let us examine this statement with some care and try to arrive somewhere near the true situation, for public opinion upon such a point is being moulded by the attitude of the profession as well as by the criticism of the laity. Reviewing for a moment the duties of the man in general practice, what do we find him doing that some would have us believe he should not be doing by reason of the division of labor into our so-called specialties?

SOME EXPERIENCES IN POINT

The writer enjoys recalling an experience of Osler in the early days of his consultation-practice.

A woman of fairly high social standing was being seen at her home for an abdominal complaint, attended by several well-known consultants—a surgeon, a gynecologist, an internist and, last of all, had been called the old family physician, who had formerly looked after the patient's physical welfare. The three leading attendants could not agree in their opinions of the case, but did agree that an abdominal exploration was called for.

Turning to the family doctor, they asked for his views. "I think she has an ordinary bellyache," was the laconic reply, "and she doesn't need an operation." She did not submit to an exploratory, but in due season she did recover. Can we not hear a modern saying: "Undoubtedly, a case of allergy?"

* * *

Imagine, if you may, the embarrassment of a specialist in otorhinolaryngology, who was consulted by a man in mid-life for some undiscovered difficulty in swallowing. An enlarged lymph node was visible on either side of the neck, anteriorly. Moderately enlarged tonsils were found, and the examination was concluded with the remark to the patient: "If we can determine that you haven't Hodgkin's disease, tonsillectomy will be indicated." No further searching by this specialist for the cause of the dysphagia, which a short time later was found through the simple aid of a laryngeal mirror to be due to a neoplastic growth arising at the base of the tongue and already encroaching upon the epiglottis. An imaginary case? No, but one taken from the records of a physician in general practice.

* * *

Or let us take from real life the case of a woman in average good health, who begins to have pain of progressive intensity in one shoulder and arm, and later down both lower limbs, requiring morphin for its partial control.

Neurologic studies are repeatedly made, and the patient is at last looked upon as suffering from a neurosis, after other diagnoses have been made and discarded. A general practitioner learning of the patient's symptoms, wonders if cord tumor has been carefully considered.

Weeks and months go by in the progress of the disease until it is decided that a laminectomy might throw some light upon the case. Such an exploration does reveal an inoperable involvement of the cord.

* * *

Or may we refer to a chapter in the life of another woman, who is still living, but who under the stress and strain of financial disaster years before presented the picture of a true psychosis, which required her being placed in a padded cell in a sanitarium. A leading psychiatrist is called upon for advice and help. A bad prognosis is given.

A physician in general practice is also asked to see the patient, and discovers, after limited questioning, that she had been taking large doses of bromids for several weeks prior to her being hospitalized—a point the neurologic specialist had not even brought up for consideration. A few days of rapid elimination promptly cleared the skies of this mind.

ARE SPECIALISTS BECOMING OVERSPECIALIZED?

Are our specialists falling into the danger of being overspecialized, of "knowing more and more, about less and less," of looking for certain combinations of symptoms and signs to lead them to a correct opinion of the patient's *status quo,* and at the same time of overlooking the really important points in arriving at a correct diagnosis?

We most heartily subscribe to the view of Hippocrates in stating that "Experience is fallacious and judgment difficult"; but are we not making our problems in diagnosis more obscure by failing to employ the very thing at hand that would lead us to a prompt solution, namely, the proper balancing of the patient's complaints against all the findings to be obtained through a painstaking use of our God-given senses! Are we decrying instruments of precision and refined chemical analyses in the study of normal and pathologic conditions of the body? Not at all. But we have seen, and do see "young bloods" in medical practice assembling a great array of laboratory findings, and then in desperation begging for a diagnosis.

Obscure cases? Yes, there are such, but some of them are darkened by a flood of reports.

IN CONCLUSION

Being ofttimes thrown upon his own resources of judgment, the general practitioner has been given the opportunity of developing to a high degree an appreciation of the values of symptoms and signs, and of acting upon his convictions with true discrimination and courage. These are the men in medicine, whom we may have been led to look upon as being born into the profession. No greater fallacy exists, for their lofty position has been reached only through the hard knocks of experience, and in their correlating the things that can be seen and heard and felt.

No, we cannot yet believe that the "general practitioner is passing," except along the usual byways and highways of life; not being led very far astray by fads and fancies either in the study or the treatment of his patient, who after all is to him not just another case, but an individual.

727 West Seventh Street.

DISCUSSION

A. B. Cooke, M. D. (947 West Eighth Street, Los Angeles).—No one would gainsay Doctor Bonta's estimate of the place of the general practitioner in present-day medicine, nor that the need for him is as great now as in the past. But that, numerically at least, he has been largely displaced by the specialist is equally apparent. Pity 'tis, 'tis true.

The extent and variety of the knowledge requisite to the successful practice of the healing art today make it utterly impossible of acquirement by any one individual. There must needs be specialists.

That the specialist, concentrated on his particular field and often obsessed by his faith in the laboratory, sometimes overlooks the obvious is certainly true. And mistakes in diagnosis will continue to be made by specialist and general practitioner alike when the importance of the history of the case and of the clinical findings are not fully recognized.

As Doctor Bonta indicates, the practice of medicine has to do, not with "cases," but with human beings.

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John W. Shuman, M. D. (3780 Wilshire Boulevard, Los Angeles).—The general practitioner, the good old family doctor, is far from dead.

He always has been, is, and always will be, the backbone of medicine.

He deals with patients, not with cases.

He has seeing eyes, hearing ears, feeling fingers and heart, and a discerning mind.

His family is not trying to overlive the "Gotrocks."

His taxes are less.

He does not have to capitalize every symptom.

He is the physician the poet writes about.

He is the bond which holds the public faith in medicine.

His patients call him "Doc," and he likes it.

"Let them call me 'Doc,' and love me."

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J. Marion Read, M. D. (Medico-Dental Building, San Francisco).—Doctor Bonta asks the question, "Is this the day of specialization?" and then proceeds to answer it in the negative.

In reading this article it seems that the author has raised up a straw man in order to knock it down. There is no point in asking the question, "Is this the day of specialization?" Doctor Bonta tacitly admits that it is, and then decries the fact. This is wasted effort, it seems to me, because this is not only "the day of specialization," but "the age of specialization." Time was when a man built his own home, raised his own food, and made his own clothes. His home was not to be compared with our present-day dwellings. The biologic law of "division of labor" produced higher animal forms, just as it has produced a higher type of civilization. The application of this principle to specialization within any single field of human endeavor, as engineering or medicine, is a logical step. To deny it is to cast one's self before the juggernaut of progress.

Doctor Bonta's "experiences in point" are not in point. They prove nothing, except that human beings make mistakes. And doctors, even specialists, are human beings. The specialist is not a new and strange kind of medical man. He is, or should be, a well-trained general practitioner who has more than average knowledge and skill in one particular field to which he has been attracted. How can one who is well grounded in his field become "overspecialized"? He cannot know too much about his own particular branch of medicine. "Overspecialization" is a contradiction of terms.

That facetious definition of the specialist as "one who knows more and more about less and less," is as unfair to him as is the definition of the general practitioner as one who knows less and less about more and more."

A man attains his greatest efficiency at the task he likes best. There have always been men who preferred to cover a large field, see large numbers of patients with a great variety of diseases. There have been other men dissatisfied with that manner of work who prefer to cultivate one field deeply, to find out all there is to know about one particular subject. Each type of human endeavor has its place, and is most useful in its place.

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Doctor Bonta (Closing).—The question has not been raised in this article whether this is the day of specialization, for that fact is all too obvious.

What we have tried to point out by a few concrete illustrations is that the rôle of the general practitioner remains today an important one.

His position in the profession is still secure.

NEVUS VASCULOSUS ACCOMPANIED BY STREPTOCOCCIC BACTEREMIA*

REPORT OF CASE COMPLICATED BY IMMEDIATE AND COMPLETE GANGRENE

By Merlin T.-R. Maynard, M.D.
San Jose

Discussion *by Thomas J. Clark, M. D., Oakland; Norman N. Epstein, M. D., San Francisco; Francis A. Torrey, M. D., San Francisco.*

Cases of spontaneous gangrene of vascular nevi are reasonably frequent in occurrence and excite little comment. Such cases occur secondary to endovascular changes, and commonly begin in the center of the lesion and extend throughout the whole area. Gangrene in these cases is not immediate, but extends from the original spot by progression requiring days or weeks for completion. The case herein described differs from the usual picture in that all of the angiomatous tissue, even those portions foreign to and having no definite connection with each other, were also immediately involved in the same process. The following is the history of the case:

REPORT OF CASE

The baby H. S., age 9 weeks, born of Mexican parentage, was brought to my office September 3, 1934, for treatment of two small ulcers, one on the buttock adjacent to the anal opening, the other in the anogenital fold. The history of these ulcerations was that they had started while the baby was still a patient in the hospital and had spread throughout an area of a birthmark on the right buttock. The ulcers complained of were all that remained of this reaction, except for a large pale scar about two inches long by one inch wide, extending in a semicircle over the right buttock. In addition to these findings, there was an extensive nevus vasculosus of rather punctate distribution over the entire right leg, largely on the extensor side extending over the right half of the scrotum, entire right buttock and over the lower right quadrant of the abdomen. In addition to this there was a large lesion involving the greater part of the dorsum of the right hand. This lesion was raised and unbroken in character. The left side of the body showed no lesions. The lesions were all bright red in color. The baby was well nourished and healthy appearing, and under no discomfort or pain.

The ulcers were painted with millians dye and were dressed with bismuth violet ointment.

On September 6 the ulcers were clean and appeared to be healing.

The baby was seen at 3:30 o'clock, September 6.

At about 6 p. m. of this same day the baby was reported to be in considerable pain and apparently running a temperature. He was seen by a pediatrician and was placed in the hospital. At this time the pediatrician reported that all of the birthmarks appeared somewhat paler. The next morning all of these same areas were blanched and white. The surrounding skin was normal. The blanched areas also included the large lesion on the right hand. Not one of the previous nevus areas showed any evidence of circulation of the blood.

Twenty-four hours later vesicles had formed on practically all lesions. The baby's temperature was 104 degrees, and he cried continuously. The picture was typically that of moist gangrene. Dry heat was applied and gentian violet dye was painted over the skin. Blood culture and direct smears from the vesicle showed a large number of streptococci. The baby took fluids and food readily, but was restless and cried a good deal. On the fourth day of the disease the child was still running a high temperature and developed an abscess of the left wrist joint, which, on incision, discharged a thick greenish-yellow pus. He was given antistreptococcic vaccine. Within the next few days other abscesses occurred within the right wrist joint and on the dorsum of the left foot. The right buttock also developed a large abscess in the necrotic tissue. The angiomatosis tissue continued to a state of dry gangrene and all evidence of local infection of the skin areas disappeared.

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* Read before the Dermatology and Syphilology Section of the California Medical Association, at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

The day after the antistreptococcic vaccine was given erysipelas vaccine was also administered and the baby was given two blood transfusions, the mother being the donor. The blood counts showed:

September 8, 1934		September 11, 1934	
Hemoglobin	73%	Hemoglobin	62%
White blood cells	21,800	White blood cells	33,500
Red blood cells....	3,780,000	Red blood cells....	3,200,000
Poly seg.	46%	Poly seg.	20%
Lymphs	16%	Lymphs	32%
Juveniles	18%	Juveniles	18%
Stab cells	20%	Stab cells	8%
		Myeloblasts	8%
		Plasma cells	10%
		Monocytes	4%

The urinalysis showed a cloud of albumen and an occasional cast.

The baby died on September 21, and an autopsy was done the same morning.

Autopsy Findings.—The autopsy done on this case showed very little in the way of abscesses in the internal organs. A small amount of intraperitoneal fluid blood was present. The muscular structure was cloudy in appearance. The heart showed a few subendocardial hemorrhages and the myocardium was cloudy. The lungs showed a small amount of pneumonic congestion, and an abscess was present in the right lobe as well as several small abscesses in the lower lobe. A few minute abscess areas were also shown on the left side. The liver, spleen and kidneys showed only cloudy swelling, as also did the other parenchymatous organs. The gastro-intestinal tract showed nothing remarkable. The skin lesions were as previously described in the clinical report. The skin of the right toe had completely sloughed away and the right buttock showed an abscessed area two by one centimeter extending into the gluteous muscle. The right wrist joint was swollen and exuded pus. The left wrist showed a similar condition.

COMMENT

I have been unable to find a report of a similar case in the literature; but it is a known fact that certain bacterial toxins will affect the circulation of embryonic tissue. Some of us have, perhaps, seen the healing of angiomata when erysipelas has developed in the vascular area analogous to the action of Coley's fluid in sarcomata. However, the presence of a streptococcic bacteremia would probably affect the neoplastic cells in a similar way. The apparent extreme pain, and the suddenness of the attack, indicate that the pain was due to the complete ischemia of the large areas of the skin involved. All areas of the lesion developing an anemic necosis simultaneously demonstrate that the origin of the vascular changes was undoubtedly hemogenous. The source of the infection was probably from the ulcers near the anus in an area impossible of complete sterilization. The progress of the disease aside from the above changes was plainly that of a streptococcic bacteremia.

407-8 Medico-Dental Building.

DISCUSSION

Thomas J. Clark, M. D. (400 Twenty-ninth Street, Oakland).—This baby with septicemia, developing thrombotic blocking of vascular nevi, is a unique case. Doctor Maynard does well to report it.

Our interest in the case is aroused particularly by the query: Did the necrotic tissue of the nevus areas contribute materially to the toxemia that produced death? Another query: Would earlier use of antistreptococcic vaccine have been of value, and would it have been better to have used the vaccine more persistently?

Pointing an answer to the first question, Doctor Maynard reported that, after the initial blocking of the nevus areas, the surrounding inflammation subsided and the nevus tissue assumed a condition of dry gangrene. One would suppose, from this condition, that absorption of toxic products from these areas was practically nil, so that it is more likely that the bacteremia of the general circulation gave the fatal toxemia.

Discussing the second question, it would seem that too much reliance was placed upon local antiseptic measures. An interval of four days intervened from the streptococcic invasion of the general blood stream before the use of the vaccine was started. During an interval of fifteen days the child survived the bacteremia, showing a rather high resistant factor which, reinforced with sufficient vaccine, might have overcome the toxemia so that recovery would have been possible. Provided the child had recovered, it is quite likely the angiomatosis nevi would have been replaced by scar tissue and the red color given place to more normal tints to the skin.

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Norman N. Epstein, M. D. (450 Sutter Street, San Francisco).—Doctor Maynard has presented an interesting clinical report which should add to our general experience. There is little to add in the way of discussion.

The sudden blanching of the areas of nevus vasculosis suggests bacterial emboli from the original infected ulcer. It is probable that stasis within the capillaries of the angioma predisposed to the condition described.

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Francis A. Torrey, M. D. (University of California Hospital, San Francisco).—This is an interesting case report—particularly since it was possible to have a complete examination of the tissues—giving definite evidence of a bacteremia. The sudden severe systemic reaction, with immediate and complete ischemia of all the nevi with subsequent necrosis, might be explained by multiple emboli completely blocking the vessels of these vascular areas.

The source of infection could have been an infected thrombus in a vein in the immediate region of the ulcers on the right buttock.

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Doctor Maynard (Closing).—I am not positive that the ischemia is due to the formation of thrombi. It would seem that, if there were sufficient thrombi to completely close all of the nevous tissue, we would also see evidence of these thrombi in the form of ecchymoses in the normal skin. It is possible, of course, that the more sluggish flow of blood in the cavernous spaces predisposes to thrombus formation. I am inclined, however, to ascribe the effect to there being a greater sensitivity of nevous tissue to toxins than the normal blood vessel with a closure of all of the vascular spaces due to an intimal edema.

THE COST OF INDUSTRIAL MEDICAL CARE*

By T. Sheridan Carey, M.D.
Los Angeles

Discussion *by J. Minton Meherin, M.D., San Francisco; Richard O. Schofield, M.D., Boulder City, Nevada; Philip Stephens, M.D., Los Angeles.*

SOCIAL insurance is now advocated as an attempt at personal security directed against the uncertainties which have developed to an acute degree in our modern society. Unemployment, old age, accident, sickness, and compensation insurance may at close range appear to differ; however, they are all insurance against poverty and essentially similar from the broad view. Since it is now recognized that poverty is due to social causes, we are now confronted with a social duty to relieve it. Poverty is not peculiar to the age of industrialism, but does become more acute when the wheels of industry turn more slowly. Therefore, in the effort to relieve poverty, attempts are made to broaden the machinery which under ordinary conditions is ample to care for employees injured in the course of their employment.

REASON FOR DISCUSSING THE SUBJECT

The principal reason for directing attention to the above subject is the increasing cost of industrial medical care when considered in the light of present and constantly changing economic conditions. At the moment when industry in general is attempting to orient itself and gain a solid footing for the long pull toward recovery, the cost of medical care of its injured employees demands important and careful consideration. There has been a steady expansion in Workmen's Compensation legislation, which is now operative in forty-four states and in all federal jurisdictions. Approximately $80,000,000 is paid annually in the United States for compensation medical service. Incidentally, the system of compensation insurance has developed some of the evil as well as the better features of the European systems of sickness insurance.

OCCUPATIONAL DISEASES

Unsuccessful attempts have recently been made in New York and Rhode Island to make compensable all occupational diseases arising out of any employment covered by the Act. Bills to provide compensation for silicosis were rejected in New York and New Jersey, but a similar bill was enacted in Kentucky. The new Kentucky law provides compensation for silicosis when it has been contracted in the operation of glass-manufacturing plants, quarries, and sand mines, or in the operation, manufacturing, treatment or handling of sand. The law provides no compensation unless the application has been filed within one year after last injurious exposure to silica dust. A bill was recently defeated in New York which would have permitted the injured employee to select his own physician and to make the employer liable for the medical fees. In California the attempt to make the employer liable for the cultist's treatment was rejected on November 6, 1934, when the Chiropractic and Naturopath Initiative measures were defeated. In Oregon similar bills were rejected which would have permitted any drugless healer to treat an injured employee. A similar bill was defeated in Arizona. A law enacted in New York makes compensable dermatitis venenata acquired in any process involving the use of or direct contact with acids, alkalies or mortar capable of causing dermatitis (J. A. M. A. Bulletin, November, 1934.)

IMMEDIATE AND ULTIMATE COSTS OF INDUSTRIAL INJURIES

The average physician who devotes all or part of his time to industrial practice is usually acutely concerned with the immediate treatment and management of the injured or sick employee. Too often he may fail to appreciate the remote result and its ultimate cost to industry. Then, too, the average physician usually does not have access to records which reveal the accumulated costs of the particular patient or group of patients with similar injuries. It is my opinion that the average physician who provides industrial medical care is not particularly interested in the average ultimate cost of groups of patients with the same or similar conditions. The physician may feel that the matter of a permanent disability rating is, after all, the concern only of the Permanent Disability Rating Department of the Commission and the insurance company or self-insured employer who pays the rating. The subject of this paper refers particularly to the discussion of the nature of compensable injuries and of permanent disability ratings with their attendant cost interpolated in terms of dollars. Much depends, of course, upon the initial diagnosis, management and treatment of the patient, which in turn affects the rating. The treatment may have been excellent, average or less than average. The rating is affected thereby in direct proportion. Other factors are also involved, viz., the employee's age, occupation, and rate. Last, but not least, is the matter of preëxisting disabilities, deformities, and the employee's general state of health.

SOME CASE REPORTS WITH COURT DECISIONS

Case 1.—A man was doing heavy work pulling up and shaking out barberry bushes. He had a perforation of stomach ulcer. Compensation was denied by the Industrial Accident Commission. The Court of Appeals awarded compensation on the basis of personal injury, affirmed by the Supreme Court of Iowa. Denied medical expenses, since employer had not been requested to furnish medical care. (J. A. M. A., Vol. 103, p. 2054, Dec. 29, 1934.) (Iowa.)

* * *

Case 2.—Vaccination—death from—compensation allowed. (J. A. M. A., p. 1096, Oct. 6, 1934.) Industrial Accident Commission denied compensation. Lower court granted compensation. Went on to appeal. Superior Court held that the employee sustained a personal injury as a result of the vaccination. The court said, irrespective of which thing happened, death was unforseen, unusual, and unexpected. Therefore accidental. Man was at work ten days before vaccinated. (Texas.)

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* Read before the Industrial Medicine and Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

Case 3.—Disability following the administration of antityphoid inoculation, compensable. Third injection into the left arm by nurse hit the musculospiral nerve, and paralysis developed twelve hours later. The two previous injections caused no disability. The mill did not force its employees to be inoculated. Compensation awarded. (J. A. M. A., p. 1332, Oct. 27, 1934.) (Louisiana.) Death from coronary thrombosis—compensable (J. A. M. A., p. 1978, Dec. 12, 1934.) Employee examined and pronounced fit for work on September 7, 1929. On October 5, 1929, wheels fell on his back. He continued at work for eighteen days. Died suddenly October 28 from coronary thrombosis. The Industrial Accident Commission denied compensation. The causal relations between injury and death, and whether accident caused death or accelerated a preëxisting condition, were held immaterial. The decision of the Circuit Court was affirmed by the Supreme Court, to the effect that compensation awarded. (Oregon.)

* * *

Case 4.—Bronchial asthma or anthracosis due to accident (J. A. M. A., p. 866, Sept. 15, 1934). Court held that the Workmen's Compensation Act does not apply exclusively to traumatic injuries. The Act provides for accident and injuries. "Accidental" does not indicate existence of an accident, but rather that the injury was "unintended or unexpected." Accidents may arise from definite events, date of which can be fixed. Occupational diseases have no definite date. Workman was exposed to gas fumes and coke dust in cleaning out petroleum stills. Compensation awarded. (Oklahoma.)

* * *

Case 5.—Employee refused to undergo operation for hernia (J. A. M. A., p. 1480, Nov. 10, 1934). Hernia had recurred two or three times. Employee refused third operation. Awarded compensation for total and permanent disability. Decision was confirmed by the Supreme Court of Oklahoma.

* * *

Case 6.—Total and permanent disability attributed to traumatic neurosis. . . . The expert medical examiner said patient was a paranoiac. Mental symptoms developed after a blow on the head, and small scalp wounds. Compensation was awarded, and affirmed by the Supreme Court.

* * *

Case 7.—Compensation recovered for double hernia operation nine years after reporting injury. (Washington.) (J. A. M. A., p. 680, Feb. 23, 1935.)

EXAMINATION OF EMPLOYEES PRIOR TO EMPLOYMENT

This leads to the discussion of examination of employees for employment. Employers are now aware of the importance of an adequate physical examination before employment, and are demanding more than a perfunctory examination. Needless to state, the examination should be complete and systematic, and the results recorded for future record. Vision, hearing, the circulatory and respiratory systems, the extremities, inguinal regions and reflexes should be carefully checked. In certain occupations, such as mining and glass manufacturing, coke-ovens and tunnel construction, the importance of a plain flat chest film at the time of examination is invaluable. Employees who subsequently develop certain diseases, such as pleurisy with effusion, tuberculosis, pneumonia, Ludwig's angina extending into the mediastinum, coronary thrombosis, bronchial asthma and perforated gastric ulcers, often claim that their disabilities result from an alleged remote injury or by reason of their employment. If only one new employee in a group of workers develops a permanent physical breakdown as a result of an advanced pulmonary tuberculosis, it is hardly fair to consider the disability as a result of his occupation and, therefore, chargeable to the industry. Likewise, it is difficult to conceive of pulmonary tuberculosis as a direct result of an alleged external injury to the chest. Applicants for employment who have been confined in Government hospitals for various types of chest diseases may deny with impunity that they have ever had tuberculosis. It is understood that physicians in veterans' hospitals do not make a diagnosis of tuberculosis unless the tubercle bacillus has been recovered.

EMPLOYEES' REACTION TO PREVAILING ECONOMIC DISTRESS

Because of present conditions, employees in general are expecting more than formerly. It is not uncommon to find injured employees dissatisfied with their ratings. They then petition for a rehearing on the basis of new and future disabilities. Very often they prevail in their claims, and are thus encouraged to live on compensation rather than by their own efforts. All of this calls for additional medical and legal expenses, which in turn are charged back to industry eventually. It is my experience that many injured employees who are able to work, and have practically recovered successfully, resist all efforts to return themselves to useful work, even when adequate or light work is provided for them. They prefer to live up to their ratings and take a chance at securing further compensation. Failing in this they then accept relief, and thus industry pays again, either directly or through taxes.

ALLEGED LOW-BACK INJURIES

Alleged low-back injuries without roentgenological evidence of bone injury are a prolific source of extended disabilities and unmerited compensation. Applicants for employment who have recently recovered from fractures involving joints, notably the elbow joint, should be required to submit roentgenological evidence of complete bony union and sound function before acceptance. A case in point with a fibrous union of the olecranon had false motion in the elbow at the time of acceptance, and later claimed to have sustained an injury in the course of his employment which was quite questionable. The cost of a subsequent operation and treatment was later charged against the unsuspecting employer. Infections which develop subsequent to an alleged injury are always difficult to classify, especially if they have not been under the early observation of a physician. Minor infections of the hands, feet, and nails are apt to prove troublesome from the standpoint of treatment, and frequently so if the patient has a positive Wassermann reaction. Without fail, employees usually consider the disability arising therefrom as compensable and demand compensation. Infections of the conjunctiva and foreign bodies on the cornea may prove to be very costly. Two recent cases have come to our attention where the employee disappeared or left work without reporting for proper medical treatment, and subsequently reappeared after a few days with perforating ulcers of the cornea and complete loss of vision in the eye. Notwithstanding the insufficiency of proof of injury, the applicants prevailed in their claims and the cost thereof was saddled on the industry. Eye injuries, needless to mention, always demand the most careful treatment possible.

PREMATURE PETITIONS FOR PERMANENT DISABILITY RATINGS

It has been our experience that many employees who have practically recovered from their injuries and who have returned to work, prematurely petition for a permanent disability rating. Of course the attending physician usually provides the special rating report in which the patient's condition is certified as permanent. Care should be exercised in the surgeon's special reports on patients with delayed or nonunion fractures. Ratings and surgeon's reports on such cases should be withheld until adequate time has elapsed to show the condition as stationary.

In compression injuries of the thorax with multiple rib fractures the ultimate rating is apt to be high, notwithstanding a good functional recovery. Maximum time should be allowed to elapse before rating reports are filed. Restricted mobility of the chest cage is difficult to evaluate even by an expert medical examiner or chest specialist, especially so when x-rays show the presence of cervical ribs and other anomalies. Subjective symptoms are often perplexing and not easy to interpret. The rating might be high because of the presence of preëxisting deformities which, subsequent to the accident, are alleged to be painful. Reference is made directly to preexisting asymmetry of the chest cage, abnormal prominence of the sternoclavicular joints, depression in the substernum and winged scapulae, all important nontraumatic factors at the time permanent disability is determined. Operations upon the acromioclavicular joint for the correction of slight widening of the joint, after a satisfactory closed reduction and good functional recovery, have failed to yield, in our experience, satisfactory clinical results.

Delayed infections of the diploe without apparent portal of entry may result in chronic recurrent osteomyelitis of the external tables of the skull. A blow on the head, remotely sustained, may be the alleged causative factor. Compensation and medical costs for such conditions may run and accumulate over an extended period.

IN CONCLUSION

The above-described conditions have been briefly presented in order to emphasize some of the factors which may add to the cost of industrial medical care. How, then, may we anticipate and avoid unmerited costs? It is believed that the employer's position would be less imposed upon if more care were provided in the selection of employees. By this is meant adequate and standardized routine physical examinations. Employers of labor, skilled and unskilled, who require physical examinations are in a superior position from the standpoint of insurance costs. A full-time physician with a competent clerk can adequately examine forty to fifty applicants in eight hours. This includes the time required for each applicant to read and sign the questionnaire on the reverse side of the examination record. The applicant indicates whether he is right-handed or left-handed. In this manner the applicant is on record in case of injury to the hands, after which he may allege that the major hand was injured.

Complete histories and physical examinations after the injury are most desirable. Brevity in the description of the original injury or incomplete examination has often made it difficult to later adjust claims. The cost of routine physical examinations is not great, and among larger employers this can be secured for less than one dollar.

SUMMARY

1. Routine physical examinations and selection of employees according to age groups are an essential and primary factor in reducing costs.

2. Adequate investigations of industrial injuries on the part of the employer are also important.

3. Complete examination of the injured employee is a prerequisite to the institution of careful treatment. The increasing costs of industrial medical care requires no compromise in the quality of medical service necessary.

306 West Third Street.

DISCUSSION

J. Minton Meherin, M.D. (350 Post Street, San Francisco).—Statistical studies issued from the various states leave no doubt as to the steadily increasing cost of caring for patients entitled to treatment under the various workmen's compensation acts.

Because of this ever-mounting expense, the more stable insurance companies are becoming less and less willing to write compensation insurance. In my opinion the reasons for these increasing expenditures are for the greater part ascribable to nonmedical causes.

Unemployment, the philosophy engendered by the dole, the reluctance of employers to provide "light work," the increasing tendency to litigate, the liberality of the Industrial Accident Commissions, and the attitude of many of these commissions to discount or even discredit honestly rendered medical reports, all, in my opinion, play major rôles in progressively enlarging the expenditures.

There is no basis upon which the insurance carriers can predict the ratio between the true and the awarded disabilities. They are, therefore, unable to balance the policy premiums with the required outlay.

No one would deny that great strides have been made in the treatment of fractures in the past eight to ten years. W. F. Dolan, however, in a publication issued by the Bureau of Statistics of the Department of Labor, shows that the disability periods in major fracture cases are progressively increasing. His analysis is based on a study of 37,349 fracture cases reported between 1922-1932 to the Department of Industrial Accidents of the State of Massachusetts. He also attributes the mounting costs to extra medical factors, but believes—and I agree—that excessive and often unwise and inefficient physiotherapy must also be taken into account as prolonging the period of disability.

Routine physical examinations without the essential roentgen studies will frequently disappoint the employer and embarrass the examining physician. The informed employer will not invest in this type of "penny wise and pound foolish" economy.

Richard O. Schofield, M. D. (Boulder City, Nevada). This paper brings out the many aspects which must be considered in arriving at a conclusion as to the ultimate cost of industrial care. Large industrial concerns long ago recognized the need for correlation of the various phases which involve the successful operation of the mandatory care for the injured workman. Because of the preëminent rôle that surgery must play in this whole scheme of affairs, these concerns are more and more centralizing the responsibilities of such a department into the hands of the industrial surgeon.

The first prerequisite for the successful direction of this departmental organization requires that the injured workman must be given the best care that modern medicine and surgery can provide; he must be treated as an individual, and never should his best interests be bartered for economic gain. Various other costs in such a department will vary according to the type of industry, the laws of the state in which the work is done, and the geographical hazards that may be peculiar at that location. Industrial Surgery in its fullest meaning contemplates the consideration of these and many other problems. The consummate total is the cost of industrial care.

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Philip Stephens, M. D. (1136 West Sixth Street, Los Angeles).—Doctor Carey's paper takes up a very important and pertinent question in these times of financial distress and industrial strife.

We are struck by the tendency of the working man to attribute more ills and disabilities to his work; to place more responsibility upon the employer and, furthermore, to bridge that gap which lies between care for industrial accidents and care of the ills and disabilities not directly attributable to industry.

The Government has bridged this gap, inasmuch as now practically all diseases of veterans, surgical or otherwise, irrespective of the financial condition of the ex-soldier, or whether or not the disability was contracted in line of duty.

The subject is one that should make us pause and think of what the future has in store for the profession, its private hospitals and set-up which our present system entails.

OCULAR COLOBOMA*

REPORT OF CASES

By Clinton A. Wilson, M.D.
Santa Barbara

Discussion *by Hans Barkan, M.D., San Francisco; George N. Hosford, M.D., San Francisco; Dohrmann K. Pischel, M.D., San Francisco.*

Case 1.—The patient is a 26-year-old woman, with coloboma of the iris, as seen in the picture. The defect does not extend into the lens, pectinate ligament, and other deeper structures of the eye. Vision without correction is normal for each eye.

There is no similar thing in this patient's family history, which is known on both sides of the family for at least two generations back. There are no other children in the family. The father of this patient is about six diopters myopic, and the mother is about four diopters hyperopic.

* * *

Case 2.—This patient is a 36-year-old male, married, the father of one son. The iris defect is as shown in the photograph. This defect continues back to the optic nerve, involving the margin of the lens, pectinate ligament, vitreous and the choroid and the retina. There are also opacities scattered through this lens. The patient is color-blind in each eye. The uncorrected vision of the right eye is normal. The left eye is myopic. Vision can be brought to 20/100 with a S — 10.00 = C — 2.00 axis 90. This finding was quite a surprise to both patient and physician, as these colobomatous eyes are usually hyperopic and of poor vision. Careful examination of the right eye under the influence of a mydriatic failed to reveal any defect.

There is no similar defect in any of the patient's relatives, that he knows of, and the family history of the immediate past generation is well known to the patient. He is an only child. His son, who resembles the mother much more than he does the patient, has normal eyes. The son's color vision was normal to the Ishihara test.

* * *

Case 3.—The third patient is a male, about 32 years of age. It was impossible to get a good photograph of this patient or the fourth. Both have very dark brown eyes, which would not contrast satisfactorily with a black pupillary area. This third patient has a congenital coloboma downward in the left eye. The iris, lens, retina, and choroid are involved. There is a macular disturbance, chiefly choroidal, associated with the coloboma apparently, and vision with or without lens is confined to hand movements at two feet or less. The eye is hyperopic and the lens clear. The right eye is normal. The family history of this patient is not well known to him. He has no record or memory of any similar condition in any of his older relatives or in his three brothers and sisters. He is quite certain that none of his sisters or brothers have had the defect which he presents.

* * *

Case 4.—The patient is a male. Age now about six months. He was first seen at the age of one month and is the son of Patient 3. Both eyes of this patient are affected, the right more profoundly than the left. There are downward congenital coloboma in each eye. The right eye is noticeably smaller than the left in this patient, and the corneal diameter is obviously shorter. From birth there was an abnormally marked bilateral nystagmus. At the age of about three months the left eye commenced to fix and the right eye turned inward and has become, if anything, more unsteady in its attempt to fix. Slight wavering of the left eye persists, but is less than a few weeks after birth. The patient does see something with this left eye, as evidenced by following of light and grasping of objects brought to his vision. The congenital defect in this fourth patient involves the deeper structures of each eye, though the macular and paramacular region of this left eye are apparently spared. The eye is of a normal size at this time and appears to be the one upon which the boy will probably depend for his best vision in the future.

As to family history, the colobomatous eye of the father has been mentioned. The mother is about two diopters myopic, but otherwise normal; and this patient has two older sisters, about three years of age, who are quite normal in every respect and who resemble their mother in appearance much more than their father, whom this patient resembles most.

COMMENT

The embryology of these anomalies of both kinds, the typical and atypical, is a matter in which differences of opinion exist even after many penetrating studies.[7] Nonclosure of the fetal cleft accounts for the appearance of the typical variety, but the causes for nonclosure are not known. The explanations of Deutchmann and von Hippel are of a more speculative nature than that of von Szilly, who presents evidence from studies on rabbit embryos that there is a fundamental defect in the ectodermal anlage.[7]

The genesis of the atypical defects is explained, according to Rones, by persistence of the fetal notches, which always occur in the margin of the normal embryonic cup and which normally smooth out; this persistence being due to a loss from some unknown causes of the growth energy of the tissue at these points.[8]

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* Read before the Eye, Ear, Nose and Throat Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

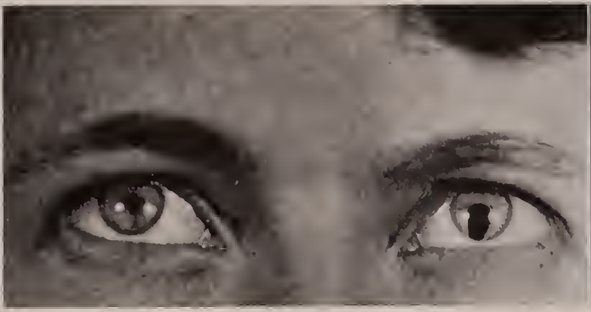

Fig. 1.—Patient 1, otherwise normal.

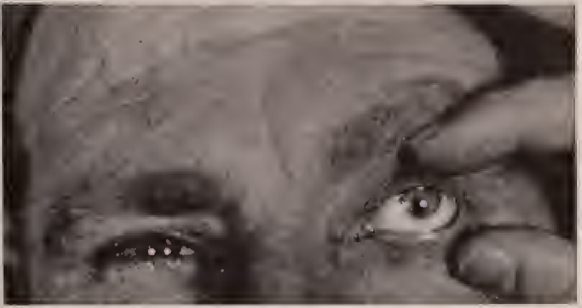

Fig. 2.—Deeper structures also involved, myopia 10 D. Unaffected eye normal.

We have here four patients with evidences of inheritance in one instance only—that of Case 4. There have been four chances for the appearance of the defect which has appeared in one case only. The son of Patient 2 has escaped any evidence of the defect, and he resembles the normal parent. The second chance is that of the twin girls, the daughters of Patient 3 and the sisters of Patient 4. These twins resemble the mother, who has no eye defect except slight myopia. At the third possibility, we have evidence of inheritance, and the inheritor of the condition strongly resembles one parent, suggesting that, perhaps, not only may there be a sex linkage, but also that the passage of these defects may be in some way associated with that rather obscure phenomenon of inheritance known as prepotence. Prepotency being a superior tendency or power of one parent in transmitting characteristics to offspring.

The rules of inheritance in these conditions have not retained their original simplicity. To the stated rule that coloboma are usually dominant in inheritance must be added the considerations of extent of the defect, of sex linkage, and possibly of prepotency.

There does not exist at this time sufficient evidence upon which to base accurate prediction of what will or will not be transmitted to an offspring.[1] These fetal cleft or typical coloboma which are not exceedingly rare show great anatomical differences from simplest indentation of the iris to large defects of the fundus, and the transmissibility of these defects may vary. There have been series of cases [3,4,6,7] of typical coloboma reported with good evidence of transmission, and also series in which inheritance has displayed a less noticeable part.[5] More typical cases have been reported than atypical ones.

It is safe and fair to say that those individuals should not reproduce who have the spontaneously occurring combined defects involving the deeper structures of one or both eyes, or who are defective individuals of family trees known to have produced or to be producing eye defects; and third, that reproduction is especially to be avoided by couples each of whom has these abnormalities.[1]

22 West Micheltorena.

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DISCUSSION

Hans Barkan, M. D. (Stanford University Hospital, San Francisco).—While we can say of certain lesions that they are congenital, that does not mean that they are necessarily inheritable. In many instances inheritance of certain eye lesions has been traced back over 150 years. In others the same lesion appears as a new entity in the family tree under our observation. The difficulties of restricting offspring are, of course, great. Except in cases of high-grade albinism, Leber's disease, and retinitis pigmentosa, I feel that too much emphasis should not be placed on this point. Doctor Wilson has presented an interesting series which does show especially the prepotency of one parent. This is sometimes so marked that when it is known to be present, further children in the family are, of course, not desirable.

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George N. Hosford, M. D. (490 Post Street, San Francisco).—I am sure we are all very grateful to Doctor Wilson for bringing these cases to our attention and recording them for the benefit of students of human biology. It is only by the study of such cases that we may eventually be able to predict the probability of their occurrence in children. According to Duke-Elder,[1] "their transmission varies very considerably in different pedigrees, the same defect appearing in one family as a dominant, in another as a recessive, and in another as a sex-linked character."

I recall one family in which the mother had an unilateral keyhole-shaped coloboma of the iris, but no other ocular defects. Her oldest child, a girl of ten, had the same condition in both eyes, but with no other ocular defects. The son, an infant of one year, had complete bilateral aniridia. I felt that a good deal might have been done to improve the optical efficiency of this child's eyes by tattooing the periphery of the cornea with the gold chlorid method, leaving the central area clear for a pupil. This idea did not meet with the approval of the parents, and so I did not have an opportunity to try it; but I feel that it would be an advisable procedure in such cases. It might even be useful in smaller colobomata of the iris, where dazzling may be a problem.

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[1] Blacker, C. P.: Chances of Morbid Inheritance, William Wood & Company, Baltimore, 1934.

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Dohrmann K. Pischel, M. D. (490 Post Street, San Francisco). — Doctor Wilson has presented a group of very interesting cases. I believe the study of such unusual cases is very valuable, not from the standpoint of the patients perhaps (for, unfortunately, we can do little for them), but from the standpoint of the doctor who makes the report. When we encounter unusual cases in the humdrum of our routine practice, we should seize the opportunity of studying them. The work of looking up the literature, studying other men's findings, and so forth, will prove stimulating to us and keep us from getting stale in our work.

Doctor Wilson has done this for himself and has given us, together with case reports, such a good résumé of the theory as to how these coloboma occur that there is nothing more for me to say on that score. However, I feel that we can do these adult patients a good service by pointing out that what vision they have will be kept. Furthermore, the possibility of having defective offspring should be pointed out to those who have a family history of this defect. And in children, by careful refraction, by reference to sight-saving classes, by instruction in eye hygiene, we can help them to develop and keep what vision they have.

DERMATOLOGIC PEN-POINTS

By Moses Scholtz, M.D.
Los Angeles

Discussion *by Harry E. Alderson, M. D., San Francisco; H. J. Templeton, M. D., Oakland; Louis F. X. Wilhelm, M. D., Los Angeles.*

1. Do not forget that athlete's foot may attack any part of the body.

2. Remember that two per cent hydrarg. ammoniate is more effective than five per cent, and five per cent is more effective than ten per cent in impetigo, because of its irritating qualities.

3. Do not fail to watch a luetic patient under specific treatment for itching or macular papular rash on the arms and body. These symptoms may be the first danger signal of the impending arsenical dermatitis.

4. Do not call any sore in the mouth Vincent's infection. It may be any of a great number of conditions, including syphilis, beginning cancer, tuberculosis, etc.

5. Also the tongue is subject to a great variety of dermatologic conditions, including persistent paresthesias and hyperesthesias.

6. Poison oak is a very much abused dermatosis. Many skin lesions developing subsequently to it are taken for recurrences or sequelae, while actually they have nothing to do with it.

7. Pruritus ani is in many cases due to mycotic infection, and is relieved by mild fungicidal applications.

8. The individual variations of skin sensitivity (or is it psychologic aberrations of the patient?) often confound the best trained clinician. The patient claims irritation from a mild ointment, such as boric or zinc ointment, and claims relief from a "patent" (much more irritating) ointment, such as cuticura or resorcinol ointment.

9. Allergy in skin diseases is the latest cloak of our ignorance, an all-embracing term with no concrete clinical significance or any help in diagnosis in the majority of cases.

10. After all is said and done, clinical experimentation with food and contact with "allergic irritants" are the only reliable means of identification, and is superior to all fancy laboratory tests.

11. Remember there is no standard treatment for any skin condition, not even for scabies and impetigo. Even in these dermatoses, drug and dosage are often to be changed to suit the requirements and peculiarities of the individual case.

12. As to dietetic advice, the patient prefers to have a positive order and the list of specific foods which he can or must eat, rather than the negative order and the list of prohibited foods.

13. Remember that all well-marginated intertrigos with circinate borders are invariably infectious in character; they may be due to pyogenic microörganisms, fungi, monilias or other skin saprophytes, and respond best to antiseptic applications.

14. Lichen-like eruption appearing in a luetic during specific treatment is most likely due to arsphenamin or bismuth. The same is true of pityriasis rosea type of eruption.

15.Granuloma annulare, ivory-like, ring-shape, hard lesion (supposedly a mild tuberculide) occurring in children, is commonly mistaken for ringworm.

16. The latest list of exploded dermatologic therapeutic pretenders with euphonious and synthetic names includes phenyl-mercuric-nitrate ointment, quinolor ointment, absorbine, jr., thiocresol, benacol, etc.

17. The youngest of dermatologic fancies—palmar epidermophytids—did not establish its clinical legitimacy in spite of all theoretical claims.

18. Do not fail to tell female acne patients to avoid facial creams, rouge, and heavy cosmetic powders, as they counteract the best treatment. Only greaseless lotions are permissible in acne.

19. Also warn acne patients under x-ray treatment to avoid sunburn of the face, as it may precipitate x-ray intolerance of the skin.

20. Remember that the tip of the nose is the most troublesome and cosmetically responsible area. It shows the slightest scarring and discoloration. Avoid or reduce to minimum electrocautery and caustic, irritating applications.

21. Do not rush to make a diagnosis of pemphigus in suddenly appearing bullous lesions on the extremities; it may be simply insect bites, particularly those of spiders.

22. A dermatologic truism which will bear any number of repetitions: the greatest majority of therapeutic failures in skin diseases is due to overtreatment, the rest to faulty diagnosis.

23. Remember that ultra-violet light is not a panacea in skin diseases. In fact, in some dermatoses it is distinctly contraindicated and dangerous; such are cases of potential malignancy and lupus erythematosus.

24. The therapeutic skill of a clinician treating skin diseases with x-ray should be measured not

by maximum of x-ray he can give without taking a chance on the acute or chronic x-ray burn, but by the minimum of x-ray he is able to obtain clinical results with.

25. Three best therapeutic tries in the treatment of seed warts: x-ray or radium, electrodesiccation, and bismuth intramuscular injections.

26. The lips that show sensitivity to sunlight and have a tendency to dry scaling, should be watched for potential development of epitheliomatosis.

27. The best treatment for buccal leukoplakia is electrodesiccation judiciously applied and the preventive regimen, with a particular emphasis on smoking.

28. Discoid types of lupus erythematosus is not diagnosed as often as should be. It is often confused with psoriasis or plain eczema. Remember the clinical earmarks—tightly adherent scales, patular follicular ducts, and superficial atrophy.

29. The humble and yet high-hatted scabies often eludes diagnostic acumen of the general practitioner, particularly in mild and incipient cases.

30. Intractable and resistant (to mercury ammoniate ointment) impetiginous lesions often turn out to be unrecognized monilia infection. They will respond to diluted iodin solution or potassium permanganate 1-1000 to 1-2000.

31. The most effective application in trichophytic infection of the scalp in children is two to four per cent iodin crystals in goose grease and painting twice a week with four per cent solution of chrysarobin in chloroform. Weekly shaving of the scalp and daily washing is absolutely essential.

32. In treating mycotic lesions on the trunk, never fail to examine the interdigital spaces of the toes—often the primary focus of infection.

33. In localized epidermophytosis infection of the feet, axillae and groins it is important to control commonly associated localized hyperidrosis with x-ray radiation.

34. Young, particularly irritable and inflamed keloids respond readily to x-ray and radium applications, but the old hard-set keloids call for plastic surgery.

35. To name offhand two most useful drugs for internal administration in skin diseases, I shall mention calcium gluconate and sodium thiosulphate.

36. Rule out five most common causes of systemic pruritus, diabetic, leukemic, nephritic, icteric and senile, before labeling it neurotic.

37. The most effective treatment of subungual warts is three to four hours' application of unfiltered radium plaque.

38. Do not use nitric acid or silver nitrate or copper pencil for cauterization purposes. The first is too violent and leaves ugly scars, the latter are too mild and may stimulate latent malignancy.

39. Do not use phenol as antipruritic in the acute inflammatory or weepy dermatoses. Mild astringent and coating applications are more effective and harmless.

40. Do not accept the claims of commercial literature that blistering or erythema doses of ultra-violet light are necessary to cure most of the skin diseases. Just the opposite is true. Only few chronic sluggish dermatoses react well to tensive doses. The overwhelming majority of dermatoses require small fractional doses.

41. Do not use arsenic in acute dermatoses. In chronic, increase the dosage very slowly and, preferably, do not exceed five to seven drops as a maximum. Sustained use of medium doses gives better dermatologic effects and much safer. Do not allow your patient to refill his Fowler's solution or Asiatic pills without your knowledge. Remember that arsenical pigmentation and keratoses, with subsequent epitheliomatous degeneration, is a very late and insidious complication.

42. Give a chance to an old syphilitic to die from old age rather than from arsenical or mercurial poisoning.

43. One of the most spectacular and characteristic drug eruptions is that caused by phenolphthalein, presenting violaceous or bluish black sharply circumscribed lesions, in severe cases associated with blebs and bullae.

44. Do not mistake insect bites so often observed in young children, appearing as large inflammatory papules, for systemic hives or food rash. The presence of stilletto, a small central opening, localization on exposed surfaces and peculiar triangular grouping, identifies the true nature of the condition.

45. In young individuals with malnutrition and low systemic resistance, pyodermic lesions of follicular pustular or ecthymatous type may last for months, in fact years. They often pass for tuberculids and clear up under intensive tonic regimen.

46. Bromid eruption often assumes fungoid type, in which case it closely simulates tertiary, gummatous syphilids or blastomycosis. A carefully taken history will give clue to diagnosis. One should remember a peculiar capacity of bromids for a cumulative action and reabsorption from tissues into circulation, which explains the casual outcropping of new lesions after the discontinuance of the drug.

47. One of the most constant clinical partnerships is the association of seborrhea and psoriasis of the scalp. In these cases cleaning off yellowish heavy diffuse seborrhoic crusts, one finds dry infiltrated well-defined patches, which reveal on grattage, typical psoriatic papillary hemorrhages.

48. Do not mistake gyrate and crescent-like lesions of erythema multiforme for mycotic (ringworm). The lesions of erythema multiforme are smooth to touch and deep, being intra- or subcutaneous, usually deep red or violaceous in color. Mycotic lesions are either scaly or vesicular, rough to touch, and are superficial, light pink or pale in color.

49. A common source of diagnostic dermatologic errors is a failure to remember that original clinical picture of dermatosis may be modified and disguised by secondary eczematization or infection due to neglect or overtreatment. In these cases the secondary condition is to be treated first, after which the diagnosis of the primary condition is rendered much easier.

50. In the absence of definite etiology, local treatment is guided and determined by the gross clinical pathology and appearance of the lesions. In the presence of acute inflammatory process, apply cooling and protective ointments. In chronic, infiltrating lesions, use absorptive and stimulating applications, like tar. In pyogenic or mycotic lesions antiseptics and fungicidal, keratotic lesions, call for keratolytic and granulomata for absorptives, particularly iodin.

1930 Wilshire Boulevard.

DISCUSSION

Harry E. Alderson, M. D. (490 Post Street, San Francisco).—These practical notes by Doctor Scholtz are well worth careful consideration by every practitioner. Every paragraph deserves discussion, and it is recommended that the entire article be read and re-read many times. I wish, however, to emphasize a few of the points and shall leave the rest for others to discuss.

The comments about the abuse of ammoniated mercury, which is commonly dispensed in too great strength, are most timely. Unfortunately, full strength ammoniated mercury ointment is frequently sold by druggists because the drug is popular with the laity.

Volumes could be written about overtreatment in general. Were it not for this common mistake, we specialists would have less to do. Often simply discontinuing the treatment and using very mild applications result in cure. Many times we see industrial dermatoses aggravated by honest but misdirected treatment, thus prolonging disability.

It is remarkable how many cases of scabies and other dermatoses are mistaken for poison oak dermatitis. Failure to respond to poison oak extract injections, and other accepted treatment, gives rise to unjustified criticism of the methods.

In discussing pruritus ani, one must remember that most cases are due to, or aggravated by conditions acting "reflexly," and that the finding of fungi in scrapings does not mean necessarily that they are primary or even important etiologic factors. Many attacks are brought on by rectal pathology with secretions originating therein.

Failure to recognize the fact that local treatment of various dermatologic conditions has to be modified to meet changes, is responsible often for disappointments.

I cannot agree with the unfavorable comment about "quinalor," for I have often found that oxyquinolin sulphate and benzoyl peroxid, properly compounded, are strikingly useful in coccogenous sycosis.

The various warnings about Röntgen therapy and ultra-violet treatment are well justified.

As for scabies, we frequently see atypical cases, and many that are masked by previous home treatment. Then there are those cases due to exposure to infested cats.

I thoroughly agree with the remarks about the efficiency of iodin crystals in goose grease for trichophytic infection of the scalp. For many years I have depended upon this preparation in these cases.

It is true that various calcium preparations seem to be useful, but I am still very skeptical about the efficacy of sodium thiosulphate, in spite of many favorable reports.

The warning about continuing arsenic administration over a long period is most timely.

The admonition to let an aged syphilitic die of old age rather than from arsenical or mercurial poisoning is one that should be printed in large type. Many an old syphilitic is "all right until the doctor sees him."

⁂

H. J. Templeton, M. D. (3115 Webster Street, Oakland).—Doctor Scholtz has succinctly given us very valuable "tips" which can be put to everyday, practical use. I shall discuss his paper by adding a few observations of my own:

Scabies.—Just as important as the treatment of the patient's skin is the disinfection of his clothing and bedding, and the treatment of any of his intimate associates who, untreated, would possibly reinfect him.

Impetigo.—Do not forget to have the patient sterilize his towels, pillow cases, and washcloths. Men should also sterilize their shaving equipment, and women should discard their contaminated powder-puffs, compacts, and creams. Else they may be reinfected.

Epidermophytosis of the Feet. — Treat the skin, of course, but also sterilize the shoes and socks. Cotton socks are preferable because, in washing them, laundries heat them past the thermal death point of the fungus. Sterilization of shoes can be attempted by placing them for twenty-four hours in a paper bag with a teaspoonful of formaldehyd on blotting paper.

Syphilis.—Success in the management of syphilis depends upon long-continued treatment. In order that this may be financially possible for the average patient, our fees should be as reasonable as we can make them. The patient is more apt to continue treatment over the necessary two- or three-year period if he has been given a minimum rate by the year or by the month.

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Louis F. X. Wilhelm, M.D. (1401 South Hope Street, Los Angeles).—The author, in fifty terse sentences, has given us some interesting impressions of his daily experience in dermatology. While there is room for discussion in some of these statements, according to individual opinion, in the main we are in agreement. The experienced dermatologist can easily add a few observations of this character every week of his practice. We are constantly confronted with situations which we wish might have been prevented. The overtreatment of scabies and impetigo, the continued use of arsenic after definite signs of intolerance, and the further use of roentgenotherapy, despite the beginning of telangiectasis, are deplorable examples.

During the past week I saw two patients who manifested late sequellae of roentgenotherapy; both patients were treated by roentgenologists after definite signs of marked telangiectasia were clearly evident in the skin. Each patient had developed definite induration with beginning fissuring and ulceration, unquestionable signs of a pre-epitheliomatous change. One patient had been treated intermittently over a period of fifteen years, the other over a period of seven years. The one patient presented a recurrent pruritus ani, the other, a pruritic patch, probably a neurodermite of the left groin. I cannot conceive of a well-trained dermatologist countenancing the further use of roentgenray therapy after the appearance of such gross skin changes as telangiectasis.

Allow me, once more, to emphasize the necessity of a correct diagnosis, and the desirability of adequate knowledge of the possible harmful reactions and late sequellae of a given type of treatment before instituting therapy in a given case.

Adequate training and long experience in a given specialty, and the liberal use of consultation whenever one is in doubt, should tend to prevent many otherwise unfortunate situations. Experience develops judgment; merely reading the penpoints of an experienced dermatologist cannot make a dermatologist out of the general practitioner.

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Doctor Scholtz (Closing). — In closing I wish to thank the discussers who deemed it worthy of debating "Dermatologic Penpoints," which were conceived rather as casual memoranda for a busy practitioner, who has no time or patience to read dermatologic manuals and so separate the wheat from the chaff.

The penpoints are based entirely on individual experience and personal interpretation of dermatologic clinical phenomena. They are not offered for dogmatic acceptance by the practitioner, but merely for practical guidance and help.

PLACENTA PRAEVIA*

By LEON J. TIBER, M.D.
AND
J. L. GOLDENBERG, M.D.
Los Angeles

DISCUSSION *by Thomas F. Wier, M.D., San Diego; Henry A. Stephenson, M. D., San Francisco; E. M. Lazard, M. D., Los Angeles.*

THE purpose of this paper is not to discuss the diagnosis and treatment of placenta praevia, but to analyze statistically the cases that were treated during the years 1925 to 1934 at the Los Angeles County Hospital.

During this period there were 26,404 obstetrical cases admitted to the hospital, of which 266 cases were placenta praevias. Since, in didactic works on obstetrics, the importance of vaginal bleeding during pregnancy is stressed, and the importance of correct diagnosis and immediate treatment emphasized, we will try not to burden you with a repetition of these well-known facts.

TIME PERIODS INCLUDED IN THE ANALYSIS

For purposes of analysis and comparison, the period between 1925 and 1934 has been divided into two—one from 1925 to 1929, and the other from 1929 to 1934. During the first period there are seventy-two cases of placenta praevia on record, and during the second period 194 cases are recorded. Of the seventy-two cases occurring during the period between 1925 and 1929, only seven cases gave a history of pain associated with the bleeding. There were eleven marginal placenta praevias, ten partial or lateral, twenty-eight central or total, one cervical, and twenty-two cases diagnosed by history alone, type not determined.

TREATMENT METHODS

The treatment in each case depended on the general condition of the patient on admission, the condition of the cervix, bag of waters, the condition and position of fetus, and the type of placenta praevia.

The choice of delivery in these cases: Spontaneous delivery, five; Braxton Hicks version and extraction, nine; version and extraction, eighteen; insertion of bag, eighteen; and cesarean section, twenty-one.

MATERNAL MORTALITY

The maternal mortality for these cases was 6.9 per cent, and a gross infant mortality of 55 per cent. This seems rather high, and we believe can be accounted for by the small number of cases recorded, which were very likely of the most severe type, while those of favorable termination may have slipped by without being recorded as placenta praevia.

Maternal deaths occurred in one case of version and extraction, cause of death being rupture of uterus diagnosed and confirmed at laparotomy; one case of Braxton Hicks version and extraction; one case of version and extraction; one where the patient died of surgical shock after cesarean section, while one died undelivered.

ETIOLOGIC FINDINGS

The most constant etiologic finding in these cases is that it occurs most frequently in multipara. Fifty-two cases occurred in women having had anywhere from two to twelve pregnancies, and only twenty were pregnant for the first time. The second period studied shows a very similar relationship between parity and placenta praevia.

INTERPRETATION OF THE CHARTS

The accompanying charts will serve to illustrate results of the various methods of treatment for the different types of placenta praevia.

From 1929 to 1934 the charts are more complete and more accurate, showing a total of 194 cases of placenta praevia. These cases, as can readily be seen in the accompanying charts, were treated as follows: 47 delivered spontaneously, 11 by Braxton Hicks version and extraction, 23 by version and extraction, 40 by insertion of a

CHART 1.—*Analysis of Cases of Placenta Praevia: Period 1925-1929*

		How Delivered						
Types of Placenta Praevia	No. of Cases	Spontaneous Delivery	Braxton Hicks Version and Extraction	Version and Extraction	Bag Insertion	Cesarean Section	Maternal Deaths	Infant Deaths
Marginal	11	1	3	..	5	2	2	6
Partial or lateral	10	..	2	7	..	1	..	5
Central or total	28	..	2	4	8	14	1	18
Cervical	1	..	..	1	..	..	..	....
Not diagnosed as to type	22	4	2	7	5	4	2	11
Total number of cases	72	5	9	19	18	21	..	....
Maternal deaths	....	..	1	2	....	1	4	....
Infant deaths	....	..	9	14	12	5	..	40

One patient died undelivered.

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* Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

Chart 2.—*Analysis of Cases of Placenta Praevia: Period 1929-1934*

Types of Placenta Praevia	No. of Cases	How Delivered									Maternal Deaths	Infant Deaths
		Spontaneous Delivery	Braxton Hicks Version	Version and Extraction	Bag Insertion	Cesarean Section	Rupture of Membranes	Forceps	Packing	Hysterectomy		
Marginal	94	29	..	12	27	10	10	2	4	..	1	33
Partial or lateral	25	5	3	3	5	6	1	1	..	1	..	5
Central or total	38	...	7	3	3	22	1	..	..	2	3	15
Cervical	1	...	..	..	..	..	..	..	..	..	1	1
Not diagnosed as to type	36	13	1	5	5	7	1	3	2	..	2	16
Total number of cases.	194	47	11	23	40	45	13	6	6	3	7	70
Maternal deaths	...	...	...	...	4	1	1	..	..	..	6	...
Infant deaths	...	18	10	10	16	7	2	2	2	3	..	70

One case died undelivered.

bag, 45 by cesarean section, 13 by rupture of membranes, 6 by forceps, 6 by packing, and 3 by hysterectomy. Some of the above methods of treatment were in combinations, such as packing until dilatation and then inserting a bag, or insertion of bag, and version and extraction after complete dilatation. However, for purposes of this paper, the most prominent feature of the delivery was used for statistics.

In the second series, maternal deaths occurred seven times. One patient died of surgical shock after section, one died after rupture of membranes due to puerperal sepsis following a retained placenta, one died undelivered, one of postpartum hemorrhage, one of eclamptic toxemia, one due to puerperal sepsis, and one of shock due to loss of blood. The total maternal mortality was 3 per cent, and the gross infant mortality 36 per cent.

The types of placenta praevia represented by this group were (see Chart 2) : marginal, 94 cases; partial or lateral, 25 cases; central or total, 38 cases; cervical, 1 case; and 36 cases were not diagnosed as to type. The same chart also shows the methods of treatment for the various types of placenta praevia, and the number of deaths in each type and for each method of treatment.

Of the 194 cases studied, forty-five were delivered by cesarean section, and 149 by older and more conservative methods. The cases delivered by section showed a maternal mortality of 2.2 per cent, and a gross infant mortality of 15.5 per cent; the cases delivered by other methods showed a maternal mortality of 4 per cent and an infant mortality of 42.2 per cent.

Bill of Cleveland, in a series of 104 cases, 78 per cent of which were treated by cesarean section, shows a maternal mortality of 1.92 per cent and,an infant mortality of 30.76 per cent. Kellog, at the Boston Lying-In Hospital, in analyzing 151 cases treated by insertion of a bag, and Braxton Hicks version and extraction, found 8.6 per cent maternal mortality and 54 per cent gross fetal mortality; while the same author in a smaller series of cases treated by section found a maternal mortality of 3.6 per cent and an infant mortality of 22.7 per cent.

Between the years 1927 and 1931 the Chicago Lying-In Hospital reports a series of seventy-six cases, 30.4 per cent of which were treated by cesarean section, with no maternal deaths and a gross infant mortality of 41 per cent. The department of obstetrics and gynecology of the University of Chicago, in a series of sixty-three cases from 1931 to 1934, 54 per cent of which were delivered by section, reports no maternal deaths and 22.2 per cent gross infant mortality.

The decrease in both maternal and infant mortality in our second series of cases is no doubt due to: First, the better education of the mothers in the value of prenatal care; second, the recognition by the doctors of the potential gravity of even the slightest vaginal bleeding; third, the prompt initiation of proper and adequate treatment; fourth, the judicious and frequent use of the supporting measures, such as transfusion before and after delivery, and proper intravenous medication; and, lastly, the use of cesarean section

CHART 3.—*Maternal and Infant Mortality (Cesarean Section and Other Methods)*

	1925-1929		1929-1934	
	Cesarean Section	Other Methods	Cesarean Section	Other Methods
Per cent maternal deaths.	4.7%	5.9%	2.2%	4%
Per cent infant deaths.	24%	68%	15.5%	42.2%

as a method of choice in most cases of placenta praevia, regardless of type, rather than as a measuse of last resort which will and has decreased both the maternal and infant mortality.

3875 Wilshire Boulevard.

DISCUSSION

Thomas F. Wier, M. D. (911 Medico-Dental Building, San Diego).—County and city hospitals are considered by many physicians dumping grounds for incurables, or places to send emergency patients to die. The report of Doctors Leon J. Tiber and J. L. Goldenberg of Los Angeles shows excellent results, as treated in such institutions. Also that we are saving more mothers and infants by use of the cesarean section. It would be interesting to know what type of placenta praevia were sectioned, and how many of them were transfused before and after operation. Were the cesarean sections of the low cervical type? Were they packed? Perhaps the low-flap type of section has contributed very much in lowering the maternal and fetal mortality. Most of the public institutions are not prepared with donors who may be available for emergencies. If the physicians give their time and services gratis to the public, why could not the institutions require the healthy ones to be typed and be ready themselves to render service to their fellow man?

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Henry A. Stephenson, M. D. (490 Post Street, San Francisco).—The authors have given us an enlightening discussion on a most difficult problem in obstetrics. Comparison of the two periods shows a marked improvement in mortality of both mother and baby in the second period. Comparison of the figures shows a much more conservative type of treatment in the second period, in that there was a much higher percentage of spontaneous births. Version and extraction did not prove so popular in the second period. We agree with the authors, as brought out by the authors in the latter part of their paper, that in certain well-selected cases cesarean section does give a much better result for both mother and baby. Certainly, fetal mortality is very greatly reduced when cesarean section is employed, and is probably the most forceful argument in favor of this procedure.

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E. M. Lazard, M. D. (1930 Wilshire Boulevard, Los Angeles).—The statistical review of the cases of placenta praevia on our services at the Los Angeles General Hospital from 1925 to 1934, by Doctors Tiber and Goldenberg, is of interest as showing the apparent greater safety of cesarean section in the treatment of these conditions than the other more strictly obstetrical methods.

This is also in accord with the results quoted from other clinics. However, in evaluating these results, one must take into consideration the many factors which should influence the choice of method in any given case. Undoubtedly, with both mother and baby in good condition, and sufficient findings to warrant the diagnosis of placenta praevia, section, together with adequate supportive treatment, offers the best results for both mother and baby.

The proper supportive treatment (intravenous gum acacia and blood transfusions, where indicated) should be emphasized.

In the first series of sixty-nine cases with a mortality of 6.9 per cent, there were twenty-seven cases of version and extraction with a mortality of 11 per cent, and twenty-one sections with a mortality of 4.7 per cent. The versions and extractions are divided into the Braxton-Hicks version and extraction, and "version and extraction."

It would be interesting to know how soon after the Braxton-Hicks versions, which presumably were done through an incompletely dilated os, the extraction was done. After a Braxton-Hicks version for placenta praevia, the labor should be allowed to proceed until complete dilatation before the extraction is completed. Also, in the "versions and extraction" how much dilatation was present?

The cause of death in one of these cases was rupture of the uterus; so, evidently, conditions were not favorable for a version and extraction.

The second series of 194 cases, from 1929 to 1934, show better results. In this series, thirty-four cases of version and extraction without any deaths; forty by insertion of bag; 45 by section, with one death; thirteen by rupture of membranes, with one death from puerperal sepsis; six by forceps; six by packing; and three by hysterectomy. In the case of the four other deaths, one undelivered, and one of postpartum hemorrhage, one eclamptic toxemia, and one from shock due to loss of blood, the method of treatment of the placenta praevia is not recorded. These figures show the fallacy of drawing any deductions from small series of cases, as pointed out by the authors, since we have thirty-four cases of version without mortality, as against twenty-seven cases of version and extraction with a mortality of 11 per cent in the first series.

The value of such statistical reviews of our work is apparent, but in evaluating them we should ever keep in mind the numerous factors which need to be considered. Our final conclusion from this review must be that in the treatment of placenta praevia. Cesarean section should have a very important place; but that, before deciding on any method treatment, all factors must be taken into consideration and the other methods, such as the pack, the bag, and version, all have their definite place, and, lastly and probably most important, that proper supportive treatment by intravenous medication and blood transfusion should be used where indicated, whatever the method of delivery.

PUBLIC HEALTH SIGNIFICANCE OF THE DIETARY HABITS OF PEOPLE ON RELIEF*

By Albert E. Larsen, M.D.
San Francisco

THERE are now about twenty million people in the United States on the active relief roll. Most of these have appeared on the "charity" list since the winter of 1930. This increase includes people from all walks of life: those who have been drifters and were used to the rigors of scanty living conditions, others whose living conditions were always borderline, and those who were accustomed to the surroundings and habits which we associate with sedentary living. These people present a public-health problem of tremendous significance. They must be provided with a plan of living that is practical to the administration and economically possible with the available funds. This is, indeed, a matter of great complexity.

SOCIAL WELFARE SUPERVISION BECAME A BIG BUSINESS

The small group of trained social workers who were devoting their lives to problems of local significance a few years ago, suddenly found themselves in the newest and biggest business of the United States. To distribute the huge sum of money necessary to operate this in the most effective manner, to care for the wants of a totally dependent group completely, led to great confusion in the beginning. Methods that were adaptable to small numbers of a more or less homogeneous group had to be stretched to care for a heterogeneous group on a national basis.

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* From the Central Medical Bureau.

EMERGENCY RELIEF ADMINISTRATION

The situation was actually an emergency and as such the Emergency Relief Administration was well named. Many methods were tested and discarded or modified with startling rapidity, and out of the chaos there seems to be emerging a well-organized and efficient system. Today the word "emergency" can no longer describe the situation. Those who are close to the situation believe that these methods will be used to care for the people on relief for an indefinite period. With light beginning to show in the actual mechanics of the administration, sufficient time will be released to study some of the implications of this movement.

THE WELFARE SITUATION AS A PUBLIC HEALTH PROBLEM

We shall not concern ourselves at this moment with the political, economical, or other possible considerations, but shall look upon this group as a public-health problem. There are many factors that may be considered under this heading, all of which affect health, as housing conditions, mental influences, opportunity for preventive procedures such as vaccination, availability of medical care and nutrition. We shall concern ourselves with the nutrition problem that these people present.

One out of every six people in the United States must have an artificial world of living conditions prepared for them. They are almost entirely dependent on the theories and efficiency of the relief administration. Will improper care of these people produce public-health problems of far-reaching consequences, or can the administration deal with the group with foresight to prevent them?

MORBIDITY STATISTICS OF CITIZENS ON RELIEF

As physicians, we know that lifetime habits are not easily changed. A recent survey made in Boston has shown that the incidence of illness among people whose comfortable circumstances were suddenly reduced was a great deal higher than that in a corresponding group who were inured to the hardships of lower living conditions. With the standards of all reduced to a minimum for an indefinite period of time, these must be of such a nature that the group will have sufficient protection from the hazards of long-continued inadequacies.

FOOD HABITS: FOOD BASKETS OR CASH EQUIVALENTS

In the matter of food habits, we must consider the problem in a broad sense. In general, the people in rural districts who raise their own produce will have access to a greater variety in amounts of food for less cost than in an urban center, where one is dependent entirely on what his cash allowance will purchase. Until March, 1934, the people of San Francisco on relief were supplied with food by the commissary system, that is, boxes of food were distributed to families, fresh milk was delivered and, in addition, a weekly stipend was allowed for the purchase of fresh meat. After this date the system of providing food was changed to a cash basis. The budget of the clients was increased so that food could be purchased as they desired. Many discussions arose as to the effectiveness and desirability of the two methods. Surveys of various natures were made to determine a choice. The clients, when circularized, almost unanimously desired the cash basis. Some of the factors responsible for this choice were the variety of selection possible, the mental uplift in purchasing their food as other members of the community, the social implications of the relief box being dropped on their doorstep, and the complaint of the neighborhood grocers over the loss of business. The administration was in favor of the cash method because it reduced the overhead and prevented the waste attendant on the box. Many items of the boxes were never used because they did not happen to be the choice of the family. Such things as canned milk, cocoa, macaroni and spaghetti accumulated on their shelves and were never used.

EFFECTS OF THE TWO METHODS

From a public-health viewpoint, one cannot say at present which method is the better. The only information at hand is the nutritional survey of 4,500 children on relief made for the Department of Public Health of this city by Dr. J. C. Geiger and Dr. Paul S. Barrett in the latter part of 1934. This group had been receiving their food on a commissary basis for periods varying from six months to two years. The conclusion of the survey was that the nutritional status of these children was quite adequate. In 1932, in New York, the average sum per family for total maintenance was $51.35 per month. In 1935 it was $42.15 per month. Under the present food budget each person in a family is allowed eight cents per meal, and the percentage of malnutrition among children has risen from 13.5 per cent in 1927 to 18.1 per cent in 1934. Since the cash relief system has been in vogue, no statistics have been gathered in San Francisco. We are now only able to predict what might happen under the present system. The dietary requirements of the family are being supplied by standards computed from the Okey-Huntington diet; this allows between seven and eight cents per meal. Theoretically, this is quite adequate and the amount of cash supplied allows the client variation and selections of their choice of foods. This was worked out for the State of California and includes a greater proportion of fresh fruits and vegetables than the average relief diet elsewhere, which are higher in cereal, cereal products, dried beans, etc. While this list, if followed accurately, is quite adequate for the dietary needs, there are certain practical difficulties which must be considered. A recent survey made by the Heller Committee to determine the food habits of people on relief has shown some interesting facts; people who have a minimum amount to spend select concentrated foods in preference to leafy vegetables and fresh fruits. The Heller Committee concluded that the average diet was deficient in vitamins B and C, in iron, and was below the normal caloric value. There are several reasons for this. The monotony of selection is probably an outstanding factor, as is shown by the desire for such articles as shredded wheat, peanut butter, and other tasty prepared foods. Whole-wheat bread was not purchased in the proportion one might have expected. When a family goes on a "taste bud spree" their budget becomes considerably unbalanced for a corresponding following period. Another reason is that the rent provision in the family budget is low, especially for San Francisco. This means that people will select living conditions that are not in accord with their means, and will use their food money to make up the difference. These points suggest that, while the budget is theoretically sufficient to provide adequate food, there will be periods of deprivation to meet these emergency expenses. Education as to the proper use of their money in purchasing foods is one thing theoretically, but to educate the masses to change from taste selection to a physiologic selection is an ideal that is rarely successful, even with the individual living under the best of conditions. Even in a small, controlled community, whose families were carefully handpicked and definitely represent the upper strata of relief clients, the entire life of the family must be planned to make both ends meet. A trained social worker must meet with the housewives to determine what to buy with the budget money. Without such supervision it is a question whether they could come out on the work relief wages which they get without sacrificing standards of nourishment.

We must assume, then, that the large mass of people on relief are going to live on borderline, if not inadequate diets. No one is prepared at the present moment to predict the consequences of this deficiency. If economic conditions change favorably within a reasonable period of time, probably very little harm will be done; but if this group of people continue indefinitely on deficient diets we must predict the gradual appearance of its consequences. The lowered state of nutrition can very easily be a background for the development of such diseases as tuberculosis. Certain deficiency diseases are apt to appear. Already we have seen a considerable increase in pellagra; multiple sclerosis is becoming quite common in clinic practice, and whether or not this is related to dietary deficiencies we do not know, though its incidence was considerably increased in Germany during the World War and postwar famine period. The condition of children's teeth is particularly poor. Malnutrition is quite common and the chronic gastro-intestinal patient is prevalent.

PROBLEM OF SPECIAL DIETS

From a purely medical point of view there is another great problem: that of providing special diets for patients. In an administration which must predict its costs and handle its people on a mathematical basis, there is not much leeway in prescribing diets that can be followed practically. Some time ago, whenever a special diet was ordered for a patient the physician's recommendations and his diet list were broken down into its various items, the cost of each item computed, and the total amount of money required to purchase such a diet was added to the patient's budget. The impracticability of this plan is quite evident. Each diet had to be considered individually, and a large staff was necessary to make the proper computations. Much delay was experienced and finally, in many instances, the diet had to be changed to meet with the economic possibilities of the administration. There was often considerable dissatisfaction on the part of the patient because certain expensive items of food were substituted by less expensive items. We have recently changed this system so that now we have what we call SERA diets for many of the common conditions which require dietotherapy. We have evolved standards of smooth diet lists, Sippy regimens, low-fat diets, low and high caloric diets, and pellagra diets. All of these have computed values, and it is now only necessary for a physician to recommend a certain kind of diet and it is put immediately into effect. The special diet department has thrown considerable light onto the type of thing that we are seeing medically. We find that there has been an increasing number of the chronic gastro-intestinal type of patient, for whom we must order smooth diets. Whether or not this is one of the results of poor-feeding habits, is difficult to say. It is quite evident, however, that if the various deficiency diseases and other diseases, such as tuberculosis, begin to increase, the cost to the state to care for these people will be greatly increased as a vicious circle begins to form.

IN CONCLUSION

To reiterate: one cannot say at the present moment just what is happening, and what the results of possible inadequate food habits is having on these people. Preventive measures are always less costly than caring for a situation after it has arisen. Throughout the world, during this depression it is known that public-health measures were the first governmental function to be curtailed. Where millions had been spent in preventive work over a period of years, only a short period of time was necessary for public-health conditions to revert to a primitive state. To re-do this work will mean a probable expenditure much greater than the saving instituted by the curtailment over a short period of time. Whether or not this statement is applicable to what is going on in the United States, I leave to your thought and discussion.

1124 Russ Building.

PEPTIC ULCER: THE BEARING OF ITS SYMPTOMS ON THE INDICATIONS FOR OPERATION*

By Arthur L. Bloomfield, M.D.
San Francisco

Discussion *by Fred H. Kruse, M.D., San Francisco; V. R. Mason, M.D., Los Angeles; Rea Smith, M.D., Los Angeles.*

THE question of just how the symptoms associated with gastric ulcer are produced still remains a matter for debate. There are two main views: first, that direct irritation of the ulcer by food and by acid causes pain, and second, that the ulcer itself is not sensitive, but discomfort is produced reflexly as a result of abnormal states of spasm or tension of one or another segment of gastroduodenal muscle. The former theory, supported in this country by Sippy, has recently been reëmphasized by Palmer;[1] Hurst, in England, on the other hand, regards disturbances of motility as paramount.[2] Now, in order to deal intelligently with the surgical problems of ulcer it is advantageous to have a correct understanding of the genesis of symptoms. It is our purpose, therefore, to analyze critically the evidence bearing on the two theories outlined above; evidence which, be it said in advance, favors entirely the motor theory and which is incompatible with the idea of direct irritation.

Discussions of this subject are usually initiated by a summary of the literature on the sensibility of the alimentary tract. We shall forego this excursion into a domain where even special workers disagree, and shall confine ourselves to clinical observation and experiment.

THE EVIDENCE AGAINST THE VIEW THAT THE PAIN OF PEPTIC ULCER IS DUE TO DIRECT IRRITATION OF THE LESION BY ACID AND FOOD

1. People with gastric ulcer may, for long periods, have no symptoms despite an abundant highly acid gastric juice. Perforation, for example, may be the first thing to call attention to a chronic ulcer; erosion of the whole thickness of the stomach wall has gone on without any discomfort. Conversely, it is common experience for the pain of ulcer to disappear entirely after a few days of rest even without the ingestion of alkali. Relief of this sort occurs before the x-ray shows any change, nor, as we have often demonstrated, is there any change in the degree of acidity.

2. Even more conclusive are observations on patients who have "typical" ulcer pain, but who have no ulcer at all. If the typical syndrome can occur without an ulcer being present, then one has a clear demonstration that direct irritation of a raw surface is not essential to the production of the symptoms.

Case 1.—R. C. (No. 173556), a 32-year-old planer, entered the hospital with complaint of stomach trouble. For ten years he had had frequent attacks of fullness, burning and gas in the epigastrium, coming on within a half-hour after meals and lasting several hours. Relief from soda, Watkins liniment, "pepsin," etc. As he gave the story, it was indistinguishable from that so often obtained from ulcer patients. The attacks lasted several weeks and recurred at frequent intervals. Physical examination, blood count, urine and stool, were normal. The gastric acidity reached 138 after histamin with large volumes of secretion. X-ray study of the stomach and duodenum ***showed no suggestion of disease,*** and symptoms were controlled after adjusting some psychological difficulties and giving him belladonna and bromid.

This patient is, then, an example of a group commonly encountered who have "typical" ulcer indigestion, but no ulcer. The relief of pain here by soda is of interest (see below).

Pertinent to this part of the argument are those cases in which symptoms persist in identical form after the ulcer has actually been cut out.

Case 2.—R. W. (No. 181151) a 56-year-old gatekeeper, complained of stomach trouble for six years. There were bouts of epigastric distress coming on two to three hours after meals, relieved by food, olive oil, and magnesia, ***but always aggravated by soda.*** The gastric acidity was high, and the x-ray showed marked deformity of the duodenal cap. At operation there was a chronic duodenal ulcer, which was excised by a pyloroplasty of the Judd type. Convalescence was uneventful, but symptoms persisted, and were only partly relieved by a strict Sippy diet. Six months after operation the patient was having the same symptoms just as severe as before excision of the ulcer. The x-ray showed some deformity at the operative site, which the radiologist did not regard as a recurrence of ulcer. A month later he committed suicide.

Here very clearly the symptoms which recurred immediately after the operation could not have been due to acid irritation of the ulcer, since it had been completely excised.

Case 3.—L. L. (No. 82848) a 56-year-old decorator complained of burning in the stomach. He had been seen in this clinic over a period of years, but finally went to another city, where the diagnosis of gastric ulcer was confirmed, and in June, 1928, he was explored. A gastric ulcer one centimeter in diameter was found on the posterior wall of the stomach, and a resection of nearly one-half of the stomach with posterior Polya type of anastomosis was made. The surgeon who operated wrote, "We see no reason why he should not now be well." However, the symptoms persisted unchanged without even a period of temporary relief. He was seen in this clinic over the next three years with his preoperative complaints persisting, distressful burning in the epigastrium coming on shortly after eating and lasting several hours. Before operation the gastric acidity was 80 per cent with Ewald meal. After operation three histamin tests all showed anacidity.

In this case symptoms persisted unchanged after excision of the ulcer, and after the man had developed *complete gastric anacidity.* Clearly, then, the symptoms could not be due to acid irritation of ulcer.

4. Approaching the problem now from another angle we may refer to the occasional instance of gastric ulcer with anacidity in which, despite the absence of acid, there are exactly the same symptoms as in those with hyperchlorhydria.

Case 4.—W. S. (No. A20351), a 43-year-old salesman, complained of upper abdominal pain. For ten to twelve years he had had discomfort, coming on one-half to two hours after meals. It was a dull, full, uncomfortable feeling. Symptoms became better and worse from time to time and were to some extent relieved by smooth diet. X-rays showed an ulcer crater four centimeters in diameter on the lesser curvature about four centimeters above the incisura. Numerous histamin tests showed complete anacidity.

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* From the department of medicine, Stanford University Medical School.

Read before the General Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13 to 16, 1935.

Acid irritation could not have played a part in the symptomatology, since there was no acid in the secretions.

5. Finally, it is possible with great regularity to produce pains resembling those of peptic ulcer by inflating small balloons in the duodenum. In the studies of Bloomfield and Polland [3] on ulcer patients, for example, the subject's individual type of distress could usually be reproduced by this procedure. Direct evidence of this sort allows only one conclusion, that the pain is due to tension and not to acid irritation.

EVIDENCE FAVORING VIEW THAT PAIN IS DUE TO ACID AND FOOD IRRITATION

Turning now to the arguments for the theory that pain is due to the direct irritation of the ulcer by acid, the main piece of evidence is the relief of distress which often (but not always) follows ingestion of alkali. But can this relief be ascribed entirely to the neutralization of acid? The adequate dose of one or two grams of soda will neutralize 75 to 150 cubic centimeters of N/10 acid. At the time when soda is given there is usually a much greater volume of highly acid gastric contents containing large quantities of buffer substances. Furthermore, as Bloomfield and Keefer [4] have shown, there may be very rapid cessation of alkalization if the stomach is emptying rapidly. Crohn [5] gives charts showing clearly that soda often abates the acidity of the gastric contents only for brief periods of time. Finally (see case R. C. above) relief of "ulcer symptoms" is often obtained in patients who have no ulcer and conversely (as in case R. W.) soda may fail to give relief when ulcer with hyperacidity is present. In some ulcer cases nonalkaline material, such as plain water or milk, may relieve, and one patient stuck to his story that a dose of Worcestershire sauce gave him more comfort than anything else. If one analyzes carefully the sequence of events after giving soda, it is found that there is usually no immediate relief, indeed there may be a momentary exacerbation of pain. It is when the gas which has been generated by the acid-soda mixture is belched up that relief comes. Sometimes there is further pain, and eructation of more gas again brings comfort.

All this indicates pretty clearly that one is not dealing simply with a chemical neutralization. It seems much more plausible that the pressure of gas liberated from the bicarbonate alters the state of tension of the pylorus or other part of the gastric wall which has been responsible for the symptoms so as to give relief; in brief the effect of soda harmonizes with the motor theory of "ulcer pain" fully as well as with the acid irritation concept.

The other important piece of evidence is the production of pain in ulcer patients by the ingestion of acid. If pain invariably followed, this would indeed carry great weight, but all experimenters admit that it is only *at times* after ingestion of acid that pain is reproduced. If pain is due to direct irritation of the ulcer by acid, why can this effect be produced today but not tomorrow; an ulcer on the skin surface would be uniformly sensitive to a given irritant. To explain this paradox some observers, such as Palmer,[6] have qualified the theory to the effect that acid produces pain provided the ulcer is sensitive at the moment. But this qualification removes all the force of the argument, at least until one explains what makes the ulcer at one moment "sensitive" and at another anesthetic.

SUMMARY OF THE EVIDENCE

Summing the evidence up, then, it seems clear that direct irritation of the ulcer by acid chyme cannot explain the production of symptoms, at least in the majority of cases. On the other hand, everything points toward abnormal states of spasm or tension of the stomach or duodenum as being responsible. While this has been loosely spoken of as pylorospasm, it is not certain that the disorder is always localized at a single point. At any rate, such disturbances may arise reflexly from a variety of troubles in the abdomen, of which cholecystitis and appendicitis are notable examples, and it is highly probable that peptic ulcer also may be a stimulus to motor disturbances, which in turn are the direct cause of the "ulcer symptoms." Finally purely cortical stimuli may produce the same result in people who have no demonstrable organic disease of any sort. The whole matter may be diagrammed as follows:

Table 1.—*Possible Explanation of Symptoms of Peptic Ulcer*

Cortical (psychic) stimuli	Reflexly lead to abnormal states of spasm or tension of stomach or duodenum which directly result in	"Ulcer symptoms" (indigestion)
Lesions of stomach (ulcer, cancer)		
Other abdominal lesions (cholecystitis, appendicitis, etc.		

ON INDICATIONS FOR SURGERY

If the argument up to the present point is sound, we not only can explain the frequent failure of operation to relieve symptoms, but we are in a better position to point out proper indications for surgery. Let it be recalled that the ulcer is not the actual "sore spot" from which distress emanates. The ulcer is not painful as an open wound on the hand would be. It may, to be sure, be the starting point of a reflex which leads to motor disturbances directly responsible for symptoms, but in other cases the ulcer is probably only an incident in a broader syndrome featured by highly acid gastric juice and motor disturbances of the stomach. In the latter event excision will produce no cure any more than treatment of retinitis will heal the sick kidney of Bright's disease; this state of affairs is illustrated by those patients whose symptoms persist unaltered after excision of ulcer, as in the cases quoted above. If, on the other hand, the ulcer happens to be the "trigger zone" for the indigestion reflex, then excision alone can and will give relief.

Plastic operations on the pylorus and gastric resections obviously alter the motility of the stomach. If it should happen that such procedures wipe out the abnormality of tension which is responsible for indigestion, then the patient is relieved, but such a result *can never be definitely predicted*. It is a matter of chance. Here, we believe, lies the explanation of why surgeons, after sixty years of operating on the stomach, still dispute as to where and how to cut and suture, always pursuing the illusion that some modification of technique will yield better results. The fact of the matter is that, with "medical" ulcer (*i. e.*, in the absence of pyloric obstruction), pretty much the same results are reported by different men, with a variety of procedures. Whatever is done in a certain percentage of cases there is relief; everyone has seen the occasional patient who even with his insides literally tangled by a series of unfortunate operations, nonetheless is perfectly comfortable; somehow or other the procedure, theoretically unreasonable, broke up his indigestion reflexes. In a further group no improvement takes place, or some patients may even be worse, regardless of what is done.

What, then, emerges from all this as regards rational indications for operation, remembering that we are dealing only with "medical" nonobstructive ulcer which has failed to respond to non-surgical therapy? First of all, it seems wise to excise the ulcer, not because this guarantees cure—for it does not—but to eliminate the ulcer as a possible starting point for indigestion reflexes (see above). Secondly, the operation should include a procedure which either by pyloroplasty, gastric resection, or gastro-enterostomy yields a very wide exit from the stomach. This in theory would seem to give the best chance of breaking up states of spasm and tension in the pyloric region which may be producing indigestion, and will also allow maximum regurgitation of alkaline duodenal contents which may promote the healing of ulcer.

Patients with pyloric obstruction, perforation, adhesions, and other complications present special problems which we make no attempt to discuss now.

SUMMARY

The patient with long-standing indigestion and peptic ulcer (even without the complication of obstruction, large hemorrhage or perforation), who fails to respond to medical treatment sooner or later requires surgical consideration. We have attempted, on a basis of the pathologic physiology of symptoms, to outline rational indications for operation. The essence of the thesis is that "ulcer indigestion" is usually not due to actual soreness of the ulcer, but to abnormal states of tension and spasm of the stomach or duodenum (such as "pylorospasm"). Furthermore, it is maintained that the ulcer often is merely an incident in a broader syndrome of indigestion and hyperacidity which may present the same symptoms even without the presence of any ulcer at all. Inasmuch, however, as the ulcer may serve as a "trigger zone" for the motor disturbances which produce discomfort, it seems wise to excise it if technically feasible. This is especially true of gastric lesions, since they may become cancerous. Aside from excision of the ulcer, the making of a wide stoma is advised whether this be done by partial gastrectomy, by gastro-enterostomy, or by pyloroplasty; this procedure would seem to offer the best chance of breaking up indigestion reflexes. But no operation so far devised guarantees a cure, nor is it likely, for the reasons given above that any surgical sure cure will ever be found. The difficulty at bottom is a vice of motility which may persist after any sort of interference.

Stanford University Medical School.

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DISCUSSION

Fred H. Kruse, M. D. (384 Post Street, San Francisco).—Surgeons and internists agree fairly well on most of the indications for gastric surgery. Divergence of opinion concerns chiefly the proper procedures for the relief of the symptoms and complications of peptic ulcer.

The persistent and chronically recurring peptic ulcer swings the pendulum to and fro, either as to the best medical or surgical treatment. The moot point in both, as Doctor Bloomfield has so well pointed out, revolves about the relative importance of motor irritability and spasm, or of acid irritation at the site of the lesion. His conclusions as to the indications for surgical assistance and the type of operation most likely to secure relief, are to be commended for their originality and departure from the stereotyped customary methods which too often fail.

As one who still finds much practical usefulness in well-directed alkaline or neutralizing therapy, I must also acknowledge that the motor-spasm theory of both the genesis and persistence of peptic ulcer has much in its favor; but there are other deciding factors, the chief of which is the individual himself.

The conclusions of Sippy, Brown, Abbott and, more recently, Palmer, that the effect of acid on smooth muscle causes the distress, never seemed entirely sufficient; but, on the other hand, the probability of its continuing an erosion and preventing healing, thus hindering alleviation of a condition which is producing pain, through excessive motor contraction or spasm in a susceptible individual, must be recognized.

Physiologists have shown that the sensitiveness of the intestinal mucosa to the acid of the gastric juice increases from the duodenum down. If the duodenal mucosa were as sensitive to the acid gastric juice as the mucosa in the lower part of the ileum, everyone would probably have a peptic ulcer. Perhaps it is because of this relative resistance that duodenal ulcer is not more common.

Horsley states that when a segment of the jejunum is united to the stump of the stomach in which the acid values are high, an excellent situation for jejunal ulcer is at once created. He states also that the larger portion of the stomach is physiologically "silent" as to symptoms. In the physiologically active part of the stomach along the lesser curvature, or at the pyloric end, lesions cause derangement of peristalsis, and produce symptoms such as pain, regurgitation, waterbrash, heartburn, nausea or vomiting. Within recent years it has been demonstrated that at the end of normal gastric digestion, when the stomach has emptied its contents, and strongly acid gastric juice has accumulated, the pylorus opens and a reflux of alkaline duodenal contents occurs, reducing the acidity. A prolonged pyloric spasm or a mechanical obstruction, preventing this reflux, increases the tone and acidity, and the combination favors persistence of an ulcer. Such an organic lesion preventing this physiological process may require surgery.

In a recent review in the *American Journal of Digestive Diseases and Nutrition,* Doctor Judd cited 857 cases of gastric ulcer where excision of the ulcer and gastrojejunostomy were performed, and pointed out the infrequency of jejunal ulcer in this procedure as a consequence. On the other hand, he noted the unsatisfactory results of gastrojejunostomy for duodenal ulcer, and the frequency of jejunal ulcer later. I cannot but feel that these results indicate the vicious combination of spasm and acid irritation.

In my experience, gastric ulcers are easier to control and heal more readily and permanently on medical treatment of rest, diet and alkalies, than do duodenal ulcers; the exceptions requiring, of course, the procedure noted above, or in selected cases, partial gastrectomy.

Finally, the treatment of peptic ulcer cannot be regimented. It is an individual problem, and to my mind the chief aspect of the problem is a study of the psyche, environmental insults, and the type of autonomic nervous system possessed by the person under consideration. Any patient with peptic ulcer, without organic obstruction and other serious complications, who shows, in addition to deep peristaltic waves by x-ray, a generally nervous or hypertonic constitution, who takes worry unto his heart, and registers his mental state by his abdominal reactions, is a poor candidate for surgery, and apt to be one of its chronically disabled, no matter how persistent or long-continued or recurrent his symptoms have been.

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V. R. Mason, M. D. (838 Pacific Mutual Building, Los Angeles).—It is particularly difficult to discuss this article because it deals primarily with physiological considerations, some of which are more or less hypothetical. It is certain, I think, that ulcers identical with the usual peptic ulcer, according to our methods of study, may occur with a total anacidity. It is certain, too, that patients with hyperacidity may present symptoms indistinguishable from those of peptic ulcer. It is also true that an occasional ulcer is silent. These facts lend weight to Doctor Bloomfield's theory that an ulcer so situated and developed to a particular degree may be the trigger area for the symptomatology which we associate with peptic ulcer. There is a growing tendency to believe that the ulcer is a manifestation of a long-continued indigestion, and that the symptomatology varies with the degree of indigestion and the location of the ulcer. However, one must always keep in mind the possibility that peptic ulcers may have diversified etiology. In this regard a revival of interest in chronic gastritis since the use of the gastroscope leads one to consider that gastritis and duodenitis may be a frequent accompaniment of peptic ulcer. Doctor Bloomfield's suggestion concerning surgical treatment, and the imponderable factors which enter into any discussion of the type of operation, should be borne in mind before any patient is submitted to surgery. A study of the surgical procedures offered for the past twenty years show many operations which have been abandoned for one reason or another; but, in addition, the tendency has been toward more radical operations with removal of the ulcerated area whenever this is possible. As an internist, I believe that the symptoms can usually be controlled by medical measures, but that hope of curing the ulcer permanently depends on proper surgical attack. This is certainly true in patients past the age of forty.

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Rea Smith,* M. D. (1930 Wilshire Boulevard, Los Angeles).—Doctor Bloomfield's contention that ulcer pain is due to tension and muscular spasm, rather than to the direct irritation of the open ulcer with the acid content of the stomach, is further borne out by the sudden and complete recession of symptoms with the change of environment or occupation.

I was for years closely associated with a surgeon who suffered from a duodenal ulcer, and as his summer vacation drew near, in other words, as he became more and more tired, his symptoms increased so that at a certain hour every afternoon he was stretched upon the examining table and given soda, administered to by his office force, to enable him to complete his day's work. On the day of his departure for a summer vacation, which was always a fishing trip, he was able to pass his four o'clock hour without pain, eat a large dinner of things he had not touched for months and have no symptoms from his ulcer during his whole trip, including a long period of camp food. When he returned to work and had again gotten the effect of the nervous tension, incident to a surgeon's life, his symptoms invariably returned. That he had a large callous ulcer was proved by operation, following perforation.

This chain of events so impressed me that I have many times diagnosed duodenal ulcer from the history of the recession of symptoms on change of environment. None of these things could, of course, take place if the pain was due to contact of acid and food to an open ulcer surface.

I think also the clinical observation among surgeons, that the ulcer syndrome must be cured by the first operation, bears out the argument of Doctor Bloomfield. If the first operation for ulcer does not effect a symptomatic cure, further surgical procedures are usually of small or temporary benefit. If a second operation does become necessary, a radical resection of the ulcer-bearing area of the stomach and duodenum gives the most likelihood of a result.

SYPHILIS AND BLINDNESS*

By M. N. Beigelman, M.D.
Los Angeles

The progress made in the diagnosis of syphilis in the early part of the twentieth century, notably the introduction of serologic tests, was of great value in the etiologic study of ocular diseases. Within a short period of time, a large amount of material has been accumulated, indicating the syphilitic origin of many obscure diseases of the eye, and it has become increasingly evident that syphilis occupied a much more important place among the causes of blindness than the early investigators were willing to admit. It was only after the World War, however, that a definite evaluation of the rôle played in this respect by the Spirocheta pallida, became possible. Facilities provided by the general census of the population in Germany in 1925, extensive public health surveys conducted in Soviet Russia between 1920 and 1930, the work of special organizations during the last fifteen years in Great Britain and, finally, reports of single investigators from practically every civilized country, have furnished us with important up-to-date information.

The object of this presentation is to collect the statistical data scattered throughout the literature of recent years, and to review them in the light of our present-day knowledge of ocular syphilis.

PREWAR STATISTICS CONCERNING SYPHILITIC BLINDNESS

Table 1 will give an idea regarding the problem of syphilitic blindness in the prewar period.

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* Deceased.

* Read at the first postgraduate assembly of the College of Medical Evangelists, Los Angeles, December 9, 1934.

TABLE 1.—*Syphilitic Blindness, According to Prewar Statistics*

Author	Year	Number of Blind People	Percentage of Syphilitic Blindness
Bremer	1873	156	3.2
Seidelmann	1876	196	2.55
Magnus	1883	463	2.59
Widmark	1902	245	14-15
Hirsch	1902	1,300	7
Bednarski	1911	100	1
Velhagen	1911	228	9

It is clear, from this table, that the figures of the prewar period, varying within wide limits between 1 and 15 per cent, are generally inconclusive. Most authors seemingly favored the lower brackets.

BLINDNESS DUE TO SYPHILIS—IN THE POSTWAR PERIOD

In the postwar period we have two sources of information regarding syphilitic blindness. On one side we still find reports of single investigators who have devoted their time and energy to the study of blindness in certain localities. These authors present comparatively small figures, but their contributions have the advantage of uniformity in the methods of diagnosis and of general investigation. On the other hand, owing to the progress in public health work, a new and important type of research has come to existence. In a number of countries, special governmental and communal agencies have made extensive studies of blindness and its causes. As a result, large statistics dealing with many thousands of cases have become available for the first time.

Table 2 shows the rôle played by syphilis in the causation of blindness according to postwar authors.

A few explanatory notes will be advisable at this time. In 1921 N. Bishop Harman presented to the British Medical Association what still remains the largest tabulation ever reported by an individual investigator. In a home for blind infants, in the schools for the blind and partly blind of the London Education Committee, and in his private practice, he examined 4,288 blind persons. In this large group, comprising all ages and various social strata, Bishop Harman could definitely establish syphilis as the cause of blindness in 703 cases, aside from a number of patients with "some evidence of syphilis." Among blind children of the school age, syphilis was present in the amazingly large percentage of 33.31.

TABLE 2.—*Syphilitic Blindness, According to Reports of Single Authors in the Postwar Period*

Author	Year	Number of Blind People	Percentage of Syphilitic Blindness
Harman	1921	4,288	16.4
Moore and Collaborators	1922	60	11.7
Igersheimer	1928	310	10.7
Utermann	1928	220	15
Smit	1931	200	16
Merida	1932	100	14

R. Foster Moore, Basil T. Lang, Humphrey Neame, and P. G. Doyne published, in 1922, a report on "Some Causes of Amaurosis in Infants." Among sixty thoroughly-investigated blind infants (some of them having been observed over a period of nine years), congenital syphilis was established in seven cases—four cases of chorioretinitis, two of optic nerve atrophy, and one of cataracts.

Among 310 young inmates of institutions for the blind in Halle and Barby (under twenty years of age), Igersheimer found that 17 per cent had evidences of syphilis. In 10.7 per cent of the total number, the loss of sight could be attributed directly to lues. Considering, in addition, the cases of probable syphilitic blindness, Igersheimer estimated that congenital syphilis in his material was responsible for 10 to 15 per cent of all blindness.

In the city of Cologne, in 1928, H. Utermann examined 220 blind persons. Syphilis, in his table, occupies the second place (15 per cent) next to myopia and retinal detachment (23 per cent).

Smit and Merida presented small groups of cases examined in their respective countries (Holland and Cuba), with a similar percentage of syphilitic blindness (16 and 14 per cent).

Table 2 does not exhaust the material reported after the World War by individual investigators. Several other authors discussed the incidence of syphilis among blind people, without presenting any definite figures as to the percentage of syphilitic blindness. Most significant among these is the report of Angelo de Masi on the causes of blindness in Apulia (Italy), published in 1931. De Masi was unable to ascertain the exact percentage of blindness due to syphilis; but considering that a large part of the optic nerve atrophies (15 per cent of the blindness), of retinitis (11 per cent), and of other intra-ocular diseases were due to syphilis, he felt that syphilis occupied the second place among the causes of blindness, with trachoma at the first (19 per cent), and glaucoma at the third place (11 per cent).

Of decided value, however, is the collective work done by oculists in several countries under the guidance of state organizations. In Germany the facilities of the general census of the population in 1925 were used for the study of blindness and its causes. Of the 33,192 blind persons registered there that year, 18,911 were subjected to an ophthalmoscopic examination, and syphilis was established as the cause of blindness in only 3.84 per cent. W. Feilchenfeld, the official interpreter of the Reich statistics, brought out the fact that blindness in late syphilis was usually classified under the heading of "Diseases of Nervous System." Adding these cases to the original ones registered as syphilitic, Feilchenfeld figured the true percentage of syphilitic blindness in Germany to be between 15 and 20.

In Soviet Russia considerable work has been done in the last ten years to clarify the problem

Table 3.—*Relationship of Trauma and Trachoma to Blindness*

Country	Trauma	Trachoma
Germany	25.84%	1.05%
Italy	2.90%	19.00%
Russia	6.56%	20.64%

of blindness from an etiologic standpoint. In 1932 Savaitov was unable to collect complete data regarding 23,350 blind persons. Four sources were used by him: (1) records of eye hospitals; (2) reports of "flying squads," headed by competent oculists and sent for a limited period of time into remote areas; (3) investigation of blindness by resident oculists; and (4) statistics of the Institute for the Blind in Moscow. It is interesting that the official figure of syphilitic blindness (3.62) given by Savaitov is almost identical with the one provided by the German census of the population in 1925. As in Germany, however, the classification of blindness in Soviet Russia was inadequate. There are reasons to think that a considerable number of "corneal opacities" (8.43 per cent), of retinal and choroidal diseases (5.62 per cent), and of "unknown etiology" (10.82 per cent), were in reality cases of syphilitic blindness, and that its factual incidence was no less than in Germany.

No detailed figures are available in our literature regarding the work on the causes of blindness of the "Special Departmental Committee" organized in the postwar period in Great Britain. We do have the following statement of Lawson based on the final report of the committee: "We learn that syphilis is responsible for no less than 10 to 15 per cent of the blindness at present existing in Great Britain."

In this country, statistics of blindness are not sufficiently complete to permit final conclusions. Only in one state, Missouri, the commission charged with administering pensions reported that "15 per cent of all blindness in those brought under investigation has been diagnosed by ophthalmologists as due to syphilis."

As we compare the incidence of syphilitic blindness in various countries, reported in the postwar period, we discover that in any of these countries it hardly deviates from the central figure of 15 per cent. This is an interesting fact, particularly if we consider the wide variations in the relative importance of other causes of blindness. Table 3 shows, for instance, to what extent ocular injuries and trachoma participate in the causation of blindness, as reported in Germany by Feilchenfeld, in Italy by de Masi, and in Russia by Savaitov.

It seems that the marked economic, social, and cultural differences which have a telling effect upon the occurrence of blindness, through injuries or from trachoma, matter little when it comes to the Spirocheta pallida. To this tiny organism all nations and countries are equal, whether agricultural or highly industrial, whether illiterate or occupying a leading position in the civilized world.

LUES AS A CAUSATIVE FACTOR

The percentage of fifteen, established for syphilitic blindness in modern times, places lues among the outstanding factors of blindness. The importance of this figure can be realized from the fact that although few systemic diseases fail to affect the visual organ, syphilis alone causes about as much blindness as the rest of systemic diseases put together. Under these circumstances we feel justified in going a little further and analyzing the ways in which the syphilitic infection manages to destroy nature's most valuable gift—that of vision.

While it is true that the syphilitic virus does not spare any part of the human eye, its affinity for various ocular tissues depends to a considerable extent upon the stage and type of the infection.

In early prenatal syphilis, blindness is usually due to an extensive chorioretinal lesion characterized by large irregular deposits of pigment, by a discoloration of the optic disc, a narrowing of the retinal blood vessels, and a generalized atrophy of the chorioretina. This peculiar fundus lesion, which is of syphilitic origin in 70 per cent of all cases (Igersheimer), is rarely seen in clinics or private offices, but it is readily discovered in any large institution for the blind infants. It is fortunate that the pigmentary chorioretinitis results in a complete loss of sight in only a small number of cases. Much more frequently the ophthalmoscope reveals this characteristic picture only at the periphery of the fundus, with little or no effect upon the central vision. The diagnosis of the peripheral chorioretinitis is of considerable prognostic value: it has been established in recent years that infants born from syphilitic mothers, and presenting these pathognomonic fundus changes, are likely to develop eventually the most dreadful complication of late prenatal syphilis: interstitial keratitis.

Whether we agree with some authorities that interstitial keratitis is always a manifestation of congenital syphilis, or whether we assume the possibility of other etiologic factors in a small number of cases the disease remains primarily a syphilitic lesion. It is unfortunate that antisyphilitic therapy, even if conducted vigorously and from the onset of ocular symptoms, is of limited value in influencing the final results. The large postwar statistics (Igersheimer, 152 and Carvill and Derby, 357 eyes) prove that in the majority of cases interstitial keratitis leads to a marked deterioration of vision. In 6.8 per cent, according to Igersheimer, and in 10.9 per cent, according to Carvill and Derby, the outcome is blindness. But even with a final visual acuity of 20/200 or 20/100, the patients, badly handicapped in the choice of occupation, are likely to become invalids and in time charges of institutions for the blind and weak-sighted.

Pigmentary chorioretinitis and interstitial keratitis are unquestionably the prevalent causes of blindness in prenatal syphilis. In a comparatively small group of blind people, stigmata of prenatal syphilis are found in association with such diseases of the eye as isolated optic nerve atrophies, congenital cataracts, hydrophthalmos, and congenital microphthalmos.

The multiplicity of ocular lesions is much more pronounced in acquired syphilis. Literally, not one of the variety of tissues in a human eye is spared by the acquired infection. The conjunctiva, the corneosclera, the retina, the uveal tract, the intraocular blood vessels, the optic nerve—all respond to the syphilitic virus by inflammatory or degenerative changes. Outstanding among them in the causation of blindness are lesions of the optic nerve. The spirochetal invasion frequently results in an optic neuritis with a more or less extensive impairment in the conductivity of the visual fibers. While the inflammatory infiltration in these cases may be favorably influenced by early and intensive therapy, the recovery is too often only anatomical, and specific functions remain permanently damaged.

In the degenerative type of optic nerve lesions, chances for the restoration or preservation of vision are negligible. In spite of the periodically appearing reports on the success of some new type of treatment, the primary optic nerve atrophies of syphilitic origin are still the despair of both the patients and the physician. No matter how early the atrophy is diagnosed the patient must be considered a candidate for blindness, as the disease is always of the progressive type. It is significant that in this group of 300 cases of primary optic nerve atrophy Uhthoff could find only two cases that were definitely stationary. The primary optic nerve atrophy may not be responsible for 21 per cent of blindness, as was assumed at one time in France, but among all syphilitic lesions of the eye it is certainly the most dangerous and uncontrollable.

The only effective weapon we have at present in combating these atrophies is prevention. Ophthalmologists of experience have noticed long ago that acquired syphilis, early and adequately treated, is rarely complicated by optic nerve lesions. Today we have at our disposal numerous statistical data confirming what was originally only a clinical impression. In 1926 Asher-Fisher published a report on 175 cases of optic nerve atrophy studied with particular attention to the amount of specific treatment previously given. Only one patient had the history of satisfactory antisyphilitic treatment, and in this case the optic atrophy was rather mild. In 1929, I. John analyzed for the same purpose the extensive material of Lindner's clinic in Vienna. He established that not one of the patients with primary optic nerve atrophy had had in the past specific treatment adequate from the standpoint of modern syphilology.

Very recently social workers have been impressed that a decline had taken place in the incidence of syphilitic infections of the eye. Let us hope that this decline, undoubtedly due to the work of public health agencies and of the medical profession as a whole, will continue until blindness from syphilis becomes a thing of the past.

1930 Wilshire Boulevard.

CONGENITAL ICHTHYOSIS (COLLODION SKIN)*

By Roland P. Seitz, M.D.
San Francisco

Discussion *by Thomas J. Clark, M.D., Oakland; Ernest K. Stratton, M.D., San Francisco; Donald A. Dallas, M.D., San Francisco.*

In severe form, congenital ichthyosis is an extremely rare condition, and it is unlikely that any one of us will see it more than once in a lifetime of practice. While the pathology is well known, there are few clinical descriptions of the disease and almost none in the pediatric literature. A recent exception is a paper by Williamson.[1]

The term "ichthyosis" is derived from the Greek word for fish; but to most of us it will immediately call to mind the Harlequin fetus so graphically illustrated in any obstetric textbook. In the less severe cases, the skin has more aptly been compared to a tortoise shell; skin of a baked apple; skin of potatoes boiled in water; morocco leather; armor of crustaceans; bark of trees, etc. As the cases vary in severity, the whole appearance changes, giving rise to an extensive and confused nomenclature.

The first noteworthy contribution to the knowledge of this condition was made by Riecke[2] in 1900. He was able to gather fifty-four cases from a sparse literature. He divided these into three groups, depending upon the severity of the disease.

ICHTHYOSIS CONGENITA PAR EXOCHEN

The first group, ichthyosis congenita par exochen, is formed of those fetuses or infants who show extensive anomalies from birth. The entire body is covered with thick, tough, horny shields and plates, mostly of yellowish-gray color, and about 0.5 centimeter in thickness. They are of manifold configuration, round, oval, triangular, quadrangular, rectangular and of different sizes. Between the plates, there are numerous fissures varying in width and depth, sloping down either abruptly and almost perpendicularly from the plate; or a gradual, slow transition takes place. Some fissures are provided with a thin epithelial covering; frequently, however, the corium is freely exposed. Hands and feet take no part in the formation of plates and fissures. In most cases the hands and feet are clubbed, and they are covered by smooth, shiny, tough, thickened skin. The genitals are normally developed in some cases, in others they are rudimentary. Ectropion of their skin-folds is the rule.

Just as typical as the abnormal condition of the skin are the anomalies in the form of the face that are found in the individuals belonging to this group. Lanugo hair covering is frequently absent, and cilia and supercilia frequently do not develop. The eyelids are rudimentary in the form of horny plates and in the position of extreme ectropion, so that the conjunctiva is prominent in the shape of a raw, red tumor, below which the otherwise normal eyebulb is hidden. The nose is flattened,

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* Read before the Pediatric Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

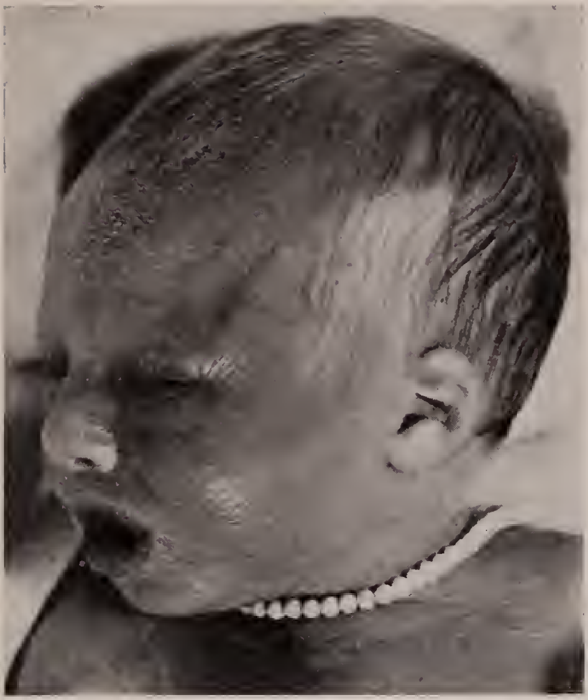

Fig. 1.—Baby E. D., age 6 hours, showing character of the skin and special organs.

frequently barely rising above the level of the surrounding skin of the face. The nasal openings are narrowed, and occasionally only one is found patent. Both lips are highly ectropionized, so that both alveolar processes are well seen. The mouth is continuously open, resembling thus the mouth of fishes. The lobules of the ears are never distinctly developed. Occasionally, the formation of the ear is indicated only in the skin of the ear, the lobules of the ear being as in bas-relief. The presence of the auditory canal may in most cases be demonstrated by sounding only, since it is a very narrow fissure.

The whole picture presented by this group is so typical that diagnosis is readily made. Most are prematurely born and die in the first three days of life. One case is reported to have lived nine days, and the longest—nineteen days. The cause of death is obscure.

ICHTHYOSIS CONGENITA LARVATA

The second group Riecke has named ichthyosis congenita larvata. It comprises those infants with symptoms of group one in more or less modified form. These were in large part full-term infants, and skin symptoms varied in the degree of their development. In some cases, while there are marked anomalies in the formation of the face, the skin may be of more or less normal appearance. In other cases, plate formation and fissuring of the integument is the most striking symptom, while the face shows only very little abnormality. Or, on the other hand, the slightly scaling skin presents numerous folds all over the body, so that it appears to be loose and too wide; on the extremities, however, it may be tightly adherent to the subcutaneous tissue, thin, shiny and desquamating in large flakes. Frequently the skin over the whole body is thin, atrophic, parchment-like, dry, shiny and traversed by fissures and furrows, and covered with scales of tissue-paper character. To this latter condition refers the comparison to thin collodion film made by some authors. Infants in this group may live a long time.

ICHTHYOSIS CONGENITA TARDA

Riecke's third group he terms ichthyosis congenita tarda. The anomalies previously mentioned are absent or present in a mild character at birth; but develop after days, weeks or months. With the appearance of these symptoms, the general development of the entire individual is affected. These patients live indefinitely, depending upon the final degree to which the ichthyosis progresses.

REPORT OF CASE

Baby E. D., female, referred by Doctors Stephenson and Dallas, was a first child. The mother and father were healthy young adults, and neither gave a history of a skin disease. The mother was born in an American relief mission and knew nothing whatsoever of her own parents. The father, a Dane, had four sisters and brothers who were well. Both parents had negative Wassermann and Kahn tests.

This was the first pregnancy and the baby, born at term, April 3, 1934, weighed slightly more than six pounds. She was first seen a few hours after birth and presented a picture that was both unusual and repellent. The skin of the face, anterior body and extremities was thin, shiny and smooth, and seemed too loosely attached to the underlying tissue. On the face and forearms it was tightly stretched and appeared too small; on the lower body and legs it hung lightly and seemed a size too large. The likeness to skin, which had been painted with collodion, was strikingly accurate. There had been a spontaneous subcutaneous hemorrhage in the region of the umbilicus. When the legs were extended the skin crinkled like heavy waxed paper, and with flexion it readily burst to produce shallow fissures. Over the infant's back the skin was wrinkled and rough, and conformed to the common appearance of ichthyosis in later life.

Regional examination showed the scalp of the same general texture as the skin in other parts. There was a copious growth of normal hair and lanugo was present over the body. Eyebrows and lashes were not observed, and the eyelids were soon pulled apart by skin tension. Severe ectropion and a less marked eclabium appeared shortly. The nose was small and bound down to the degree that it was white in color. The ears were undersized, thickened and hard. The hands and feet were yellowish-white from pressure anemia, smooth, shiny, and withal appeared as though carved in wax. The fingers and toes were held in flexion; felt firm and resistant to touch. Their mobility was limited. The nails were normal.

Routine laboratory examinations, including Wassermann and Kahn tests, were negative.

During the first few weeks of life, the general appearance of the infant became progressively more appalling. The ectropion increased in degree and a stubborn conjunctivitis developed. The skin was kept well oiled, but desquamation was constant. Once daily the baby was subjected to soap and water, and what might be termed "general debridement." At this occasion large and small flakes of skin were removed in great abundance.

The patient was dismissed from the hospital at age two months. She was artificially fed and weighed nearly two pounds over birthweight. Desquamation continued to the degree that scales covered the floor at every office examination When the child was three months old huge portions of the scalp peeled off and the hair came with it. There was left only a single small tuft of hair at the vertex. Later, the scalp continued to desquamate; but in smaller flakes and the hair grew undisturbed. Shedding of skin from the body, while universal and continuous, was no longer in huge pieces. The ectropion subsided and the hands and feet assumed an appearance similar to the rest of the body.

At the age of a year, the baby weighed nearly nineteen pounds, was well nourished and general development had not been retarded. She could walk a little and was able to speak a few words.

A skin biopsy was performed when the patient was age nine months, the tissue being removed from the lower back. The pathologist reported thickening of all layers of the epidermis and slight diminution in elastic fibrils. There were no abnormalities of the hair follicles or sweat glands. The diagnosis was hyperkeratosis and parakeratosis (as in ichthyosis).

COMMENT

As far as I can find, this is the first case of ichthyosis with collodion skin which has survived more than a very short time, and it is noteworthy that the disease did not interfere with the general development in detectible degree.

The continued observation here permitted seems to disprove a popular explanation of the cause of the disease pronounced by Bowen[3] in 1895, and reiterated by Kingery[4] in his excellent paper written as late as 1926. Bowen draws attention to the epitrichium of certain of the lower animals. This is found in the embryo as a distinct outer membrane which covers the hair development of the animal, and is later cast off. In man and some other animals, an homologous epitrichial layer of large polygonal cells, granular in appearance and with large nuclei, was observed by him in embryos of from two to three months. This was considered a definite and distinct histological layer, and was found to disappear over most parts of the body by the sixth month.

Bowen assumed that the cutaneous phenomenon in ichthyosis was due to the persistence of the epitrichial layer which had preserved its integrity up to the time of birth, instead of being cast off by the seventh month as in a normal fetus. Exfoliation then occurred after birth to reveal a normal integument. The author reports a case with collodion skin and refers to two other well-known reports in the early literature. In all of these the collodion pellicle stripped off in large pieces as in my case; but none had ectropion nor articular fixation. One patient died three days after birth; the other two were reported nearly normal after extensive peeling of the pellicle.

The last slides I showed clearly demonstrated a markedly abnormal skin in patient E. D. and exfoliation continues to a striking excess at the age of one year. It seems impossible to accept Bowen's intriguing theory as an explanation.

Except that several authors have noted the thyroid absent or improperly developed in patients with ichthyosis and deficient thyroid function during intrauterine life may be a factor in causation; there are no other likely theories regarding etiology in the literature.

The pathology is reviewed in detail by Hess and Schultz,[5] who present a comprehensive necropsy report on a case of their own. In all, there is much confusion and some diversity of opinion, and I can do no better than present the conclusions of these authors that ichthyosis "is a condition, having its origin in the fetal period of development, the most striking feature of which is marked increase in the horny layer of the epidermis and abnormal hornification of the epithelial skin structures. The hyperkeratosis, which becomes the predominating element in the pathologic process, is believed to be the result of a preceding stage of hypertrophy and hyperplasia of the skin."

There is no satisfactory treatment for this disease. The frequent, generous application of oil kept the skin smoother and improved the general appearance of the baby but had no other effect. Salicylic acid ointment proved cleaner than oil and was more effective, especially on the face. In the diaper area the skin was usually more normal than elsewhere; but this was not so after the baby was trained.

Fox[6] long ago advocated the use of thyroid extract in treatment and the thyroid gland has been found small or absent at some necropsies, as has been stated. There are no reports of striking improvement with glandular therapy, however.

490 Post Street.

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DISCUSSION

Thomas J. Clark, M. D. (400 Twenty-ninth Street, Oakland).—Doctor Seitz is fortunate in having experience with such a rare case of ichthyosis, a baby at birth showing persistence of the embryonal epitrichial membrane. The more so is he fortunate in seeing the baby survive.

The common type of ichthyosis, although an hereditary abnormality of the epidermis and its appendages, gives no particular signs of the skin changes at birth: an interval of growth of two or three years for the babe takes place before the dryness of the oil system, with the thickness and harsh scaling of the skin, is noticeable.

In these common types the ichthyotic skin seems to be the single barrier to normality. The dry, rough skin will persist throughout life. The lack of sebaceous balance must be compensated by the use of artificial fats and oils rubbed in to the skin.

By contrast, the babe at birth covered by the epitrichial vestigal membrane is so handicapped that death ensues shortly after it is born. Inability to nurse and lack of sleep are the fatal factors.

No satisfactory explanation has been given by embryology for the retention of the fetal epitrichial layer till the time of birth in this type of ichthyosis. In normal babies this membrane probably disintegrates and becomes a portion of the vernix caseosa. In these cases the vernix caseosa is lacking, probably due to the atrophy of the sebaceous glands.

Report of Case.—I wish to report another case of ichthyotic membrane persisting at birth in a girl baby that survived and is now almost two years of age. This baby is the twelfth child of its mother, who is forty-five years of age, well and strong. Both she and her husband are of Nordic parentage and neither are ichthyotic. Her sixth and seventh full-term babies were ichthyotic, and both died a few days after birth. She has given birth, therefore, to three ichthyotic babies. She has now nine living children; eight are normal, and this last one ichthyotic. She reports that her mother's sister, who is over fifty years of age, has an ichthyotic skin.

This baby was in a precarious condition for ten days. It was carefully fed and persistently anointed. When the false membrane, much like a sheet of cellophane, had exfoliated, the baby's skin showed dryness, was cyanotic, and lacked the abundance of subcutaneous fat normally present. As the babe grew, the skin gave the appearance of the common type of ichthyosis.

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Ernest K. Stratton, M. D. (490 Post Street, San Francisco).—Through the courtesy of Doctor Seitz, I had the privilege of seeing the patient herein reported on two different occasions—first, while it was still in the hospital (aged four weeks), and again when it was nine months of age. When I first saw the patient, the skin on most of its body truly resembled that of a baked apple. With such a generalized involvement, the marked ectropion and the fixation of the skin on its hands and feet, I did not see how it could possibly survive; yet, a few months later, the child resembled a normal one, with the exception of the ordinary ichthyosis which Doctor Seitz has mentioned.

I think Doctor Seitz is to be congratulated on the skill and perseverance which he gave to this case. For without such intelligent handling the case report would have included, in all probability, the necropsy findings as well.

The biopsy taken at the age of nine months showed a moderate ichthyosis only. I would like to have seen a section of skin from the "collodion" areas taken earlier in the baby's life.

I agree with Doctor Seitz regarding the classification of this case. It is mixed, belonging partly in the second group, "Ichthyosis congenita larvata," and partly in the third group, "Ichthyosis congenita tarda."

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Donald A. Dallas, M. D. (490 Post Street, San Francisco).—Doctor Seitz has presented a report of a case very rare in medicine, and I think that he should be congratulated on his excellent work in keeping this unusual child alive and well.

This baby was delivered by low forceps after a normal pregnancy and labor. I was astounded at the appearance of this child on delivery. It was a deep purple in color, with the exception of a few areas over the body, the nose, the palms of the hands, and the soles of the feet, which were the color of ivory. The skin over most of the body appeared to be transparent, was smooth, and glistened in the light. It was not until the skin began to dry that it took on the characteristic wrinkled appearance. The child cried lustily immediately after birth, and its general condition seemed good. I thought, however, that it would surely die within a few days; but under Doctor Seitz's care it has thrived. I hope that the progress of this unusual child will be reported at future meetings of this section.

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Doctor Seitz (Closing).—I wish to reaffirm my observation that no distinct epitrichial membrane was identified in the case reported here. While desquamation was more pronounced in earliest infancy, it continued abundantly during the whole first year, and I cannot convince myself that this persistent and universal shedding has been caused by a retention of the fetal epitrichial membrane.

AGRANULOCYTOSIS*

By O. C. Railsback, M.D.
Woodland

Discussion *by Olin H. Garrison, M. D., Oakland; Stacy R. Mettier, M. D., San Francisco; Fred H. Kruse, M. D., San Francisco.*

DURING the past few years, the condition commonly known as agranulocytosis has appeared with great frequency in the medical literature and before scientific gatherings. However, one has but to glance at the literature to be aware of the divergence of opinion and confusion of ideas which have been presented. It would seem worth while to review this information and to attempt to coördinate it.

The condition is generally regarded as a fulminating illness of unknown etiology, characterized by a marked reduction in the total number of white cells and by a great reduction in the percentage of granulocytes, unaccompanied by notable anemia, in which both hypoplastic and hyperplastic myeloid tissue have been described.[1]

NOMENCLATURE

Various authors have proposed different names for this same condition, on the basis of a correct descriptive nomenclature. The term "agranulocytosis" was applied to the condition by Schultz[2] in his original description. Friedmann[3] added the term "angina" because of the frequent occurrence of painful throat lesions. Baldridge and Needles[4] applied the term "idiopathic neutropenia." Schilling[5] suggested "malignant neutropenia." Other terms, such as agranulosis, granulocytopenia, and pernicious leukopenia, have been proposed. For the purposes of this paper, it makes little difference what term is used so long as we are certain that we are discussing the same condition.

HISTORY

Pepper,[6] in his history of malignant neutropenia, is of the opinion that the disease was described some fifty years ago in the laryngological texts under the heading of "putrid sore throat," or "gangrenous angina." He states that probably the first case reported in this country was that of Brown and Ophüls,[7] in 1902, as a fatal case of "acute primary infectious pharyngitis." However, it was not until Schultz[2] described his four cases, stating that he believed the disease represented a distinct clinical entity, that the condition was brought into sharp relief. Following the report of Lovett[8] in 1924, interest was stimulated in this country, and since then the literature has fast multiplied.

ETIOLOGY

Many authors have taken the stand that the disease is not a clinical entity but, rather, a syndrome common to many pathological conditions.[9,10,11] It is a known fact that a leukopenia and neutropenia, of severe grade, may occur secondary to aleukemic leukemia,[10] aplastic anemia,[10] sepsis,[9,12,13] arsenic poisoning,[14,15,] benzene poisoning,[16] and following the administration of the arsphenamins.[17] However, numerous case reports have appeared where these factors are totally absent and, as pointed out by Jackson,[18] this fact should not militate against an entity any more than the fact that a pernicious anemia picture may occur with dibothyrocephalus infection, with carcinoma of the stomach and following gastric resection militates against pernicious anemia as an entity. Also, in the case of aleukemic leukemia, there is usually evidence of a disturbed erythropoietic and thromboplastic function, as well as myelopoietic, and the same is true of the arsenicals and benzene. So the blood picture itself is not that of a true granulopenia.

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* Read before the General Medicine Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

Sepsis or infection as an etiologic agent has not been a universal finding in all cases, as pointed out. Also Jackson,[18] Roberts and Kracke,[19] have reported the typical picture preceding the onset of sepsis or an infection. Efforts to experimentally [20,21] produce the condition by means of an infective agent have failed to produce the typical picture. The frequent occurrence of a sepsis is probably best explained as an invasion of a relatively defenseless organism as a result of the granulopenia.

Pepper[22] has suggested the possibility of allergy as an etiologic agent. Schilling[5] produced a picture somewhat similar to agranulocytosis by means of anaphylactic shock. Bromberg and Murphy[23] and Kracke,[24] each have reported a case following prophylactic vaccination against typhoid. Jackson and associates[18] state they have seen cases develop following administration of sera and antitoxin. However, allergy has not been a universal finding, and would not seem to be a major etiologic factor.

The fact that there are instances of onset of the disease coincidental with menstruation, as reported by Thompson[25] and Jackson, et al.,[26] and the periodicity of attacks occurring at regular intervals in the case of Doan[27] and that of Rutledge, Hansen-Pruss and Thayer[28] have suggested the possible rôle of some endocrine disturbance. However, the menstrual relation in the case of Thompson and that of Jackson could be explained on the basis of chance occurrence alone, and the fact that the relationship is only an occasional finding would seem to minimize it as an etiologic factor. In Doan's case he states that there was no menstrual relationship with the attacks. There has been to date no majority of cases which have demonstrated an associated endocrine disturbance. Thus it would seem that the endocrine factor was not a consistent one.

With the announcement a year ago of Madison and Squier[29] that in fourteen consecutive cases of typical agranulocytosis, amidopyrene, either alone or in combination, had been ingested previously, and that in the six cases of patients who continued to take the drug the mortality was 100 per cent, whereas in the eight in which the drug was discontinued the mortality was but 15 per cent, served to focus attention upon the relationship of this drug to the syndrome. Also, the positive relationship seemed to be strengthened by the fact that in two of the cases following recovery a positive temporary granulopenia was produced by a single small dose of the drug. Following this announcement, there were additional reports by Rawls,[30] who also was able to produce a recurrence in one patient after administering 280 grains of the drug. Hoffman, Butt and Hickey,[31] Watkins,[32] Fitz-Hugh,[33] and Randall,[34] pointed out a similar relationship. However, Jackson,[35] in an analysis of twenty-seven cases in which he possessed complete data relative to medication, found that in only seven cases could the drug be regarded as responsible for the condition. Similarly Seeman,[36] in analyzing thirty-six cases, found that in but thirteen had amidopyrene been taken. Rawls states that in two hundred patients who had been taking amidopyrene regularly, two developed a granulopenia. Due to the fact that in the series of Madison and Squier[29] and Watkins,[32] barbiturates had been frequently taken in combination with amidopyrene, it was felt that perhaps the former possibly played a part. However, to date there have been no cases in which a barbiturate alone has been responsible. This fact would seem to exonerate the drug. In June, 1934, the Council on Pharmacy and Chemistry of the American Medical Association, after investigating this phase concluded: "As far as can be learned from the evidence at hand, there can be no question that amidopyrene is very important in the production of granulocytopenia. . . . In the second place, no definite case has been reported in which a barbiturate alone has been responsible. There is no doubt that many cases of granulocytopenia have occurred in which amidopyrene has never been taken." This evidence would seem to incriminate amidopyrene as a factor in producing granulocytopenia, but certainly proves that it is not the universal etiologic factor.

During the past year a similar relationship between dinitrophenol and the disease has been reported by Hoffman, Butt and Hickey,[37] Bohn,[38] Davidson and Shapiro,[39] Dameshek and Gargill,[40] and Silver.[41] This fact, therefore, should be regarded when administering the drug for therapeutic purposes.

Hart[42] and Zinninger[43] have reported the occurrence of a malignant neutropenia in two sisters. This fact has suggested the possible rôle of a familial tendency. However, this observation has not been constant and would seem not to be of importance.

When all factors have been considered, there is no doubt that certain chemicals and toxins can produce an agranulocytosis. There still remains a group of cases for which no etiologic agent has been demonstrated. That these may constitute an entity is possible, but as yet this is not proved.

PATHOLOGY

Studies on bone-marrow pathology have been confusing, as some[44,45,46,47,48] have reported "granulocytic aplasia," while others[18,49,50,51,52] have found a normal or increased myeloid activity. However, in the latter studies there is an absence of the mature granulocytes. Some have reported the presence of myelocytes, and others have found nothing beyond the development of so-called "stem" cells. Fitz-Hugh and Krumbhaar,[53] in a thorough study of three cases, had similar findings and postulated their theory of "maturation arrest." Custer,[52] after studying the bone marrow of eleven cases, had similar findings in nine, with a moderate hypoplasia in two, although the qualitative changes in these two were of the same nature; and he is inclined to agree with the theory of "maturation arrest." Jackson,[18] after examining the marrow of twenty-five fatal cases, found no evidence of a hypoplasia in those dying early in the course of the disease, while in those patients who survived the ravages of infection for a period of eight to twenty days, the bone marrow was found to be relatively hypoplastic. These findings may serve to explain to some extent the heretofore apparently opposite findings by different writers. Jackson also found no granular cells developed beyond the "stem cell" stage. He also would agree with the theory of "maturation arrest" of Fitz-Hugh and Krumbhaar. It would seem that the majority are in agreement that the erythropoietic and thrombopoietic elements are undisturbed, and when changes are shown here it is probably secondary to the toxemia or sepsis which has complicated the picture.

Ulcerative and gangrenous lesions of the oral cavity, gastro-intestinal tract and vagina are frequently described as brawny and edematous indurations showing an absence of polymorphonuclear leukocytes. Certain minor changes of the liver, spleen and lymph nodes have been described, but are generally regarded as secondary to the toxemia or an accompanying sepsis and not part of the agranulocytosis. In the cases complicated by sepsis those lesions common to any sepsis are described.

CLINICAL PICTURE

The clinical picture in general may be said to be characterized by a rapid or sudden onset, marked prostration, fever, headache, malaise, chills, sore throat, ulcerating lesions of the oral cavity and gastro-intestinal tract, and by extreme leukopenia and neutropenia unaccompanied by notable anemia.

The condition occurs far more commonly in women. Hueper,[54] from the literature, found 77 per cent in females as against 23 per cent in males. In Lichtenstein's [55] series there were twenty-four females and three males, or 89 per cent females. In Jackson's [18] series of 103 cases, eighty-three were found to be females and twenty males.

The incidence of the disease is greater in mid-adult life. It is very unusual for it to occur under the age of ten. Dameshek and Ingall [49] collected eleven cases from the literature under the age of ten, and reported two additional cases, one aged two, and one a child of sixteen months. Both were preceded by purulent otitis media. In the Jackson [18] series, there were none under the age of ten years. Beck [1] states that practically all cases occur between forty-one and fifty-eight. The greatest incidence in Jackson's[18] series was in the fifties, 29 per cent occurring in this decade. In this review of the literature, computed from ninety-two collected cases[1,23,27,29,32,49,56,57,58,59,60,61,66] 35 per cent were found to have occurred in the fourth decade of life.

In malignant agranulocytosis, the picture is that of an acute fulminating illness. The white count is rarely 2,500 per cubic millimeter, and often 1,000 or less, frequently in the hundreds. Neutropenia is extreme, with frequently a total absence of neutrophils and often not over 5 per cent. In Jackson's[18] series of 103 cases, thirty, or 28 per cent, had counts less than 500; twenty-eight, or 27 per cent, between 500 and 1,000; thirty-eight, or 37 per cent, between 1,000 and 2,000; and only seven, or 7 per cent, between 2,000 and 3,000.

Most observers[18,27,45,53,61,65] report the platelets normal and a practical absence of anemia. Occasionally an anemia occurs secondary to a sepsis or in the terminal state of the disease. As one would expect from these findings, there is also reported an absence of a hemorrhagic tendency. Contrary to this, Roberts and Kracke [56] and Aubertin and Levy [11] find a thrombopenia, and are of the opinion that bleeding is a common manifestation. That these opposite findings may be explained on the presence or absence of a complicating sepsis, or a difference in the stage of the disease at the time of observation, is probable.

Jaundice has been frequently observed by Schultz[65] and Pepper.[22] Kastlin[45] reported its presence in 17 of 32 cases; Lichtenstein [55] in 8 of 27 cases; Jackson [18] in 7 of 103 cases. Chalier [67] and Jackson [18] are of the opinion that the jaundice is the result of hemolysis from secondary bacterial invasion. Certainly there is nothing in the primary pathology to explain a jaundice.

The spleen is but rarely enlarged and a lymphadenitis, except regional from a local infection, is most unusual.

Gangrene and consequent sloughing may occur, and when it involves the gastro-intestinal tract it is particularly dangerous. When present in the throat, an accompanying edema may prove a grave menace and require tracheotomy to render breathing possible.

The fever presents nothing characteristic. As a general rule, it is 102 to 103 degrees, although it may go to 106 or 107 degrees. Occasionally only a very low-grade fever is present.

That less severe cases of granulopenia occur has been pointed out by Mettier and Olsan,[62] Roberts and Kracke,[63] and by Doan.[27] In this type the outstanding feature is that of fatigue, and the mortality generally is lower than in the malignant type.

Chronic forms have been reported by Fitz-Hugh and Comroe,[61] Doan,[27] Rosenthal,[64] and others. These have been followed for periods varying from a month to as long as six years in Rosenthal's two patients. The leukocyte count is usually not below 2,000, and with neutrophils generally about 20 per cent, except in the terminal state, when the count may be as low as 500 and neutrophils absent. In Fitz-Hugh's [61] report of eighteen cases, five were of the chronic type, four of which died.

Recurrence following recovery is not uncommon. Harkins,[57] in 1932, collected thirty-six cases exhibiting recurrences, with intervals ranging from three months to two years. He states the mortality rate in recurrent cases is high, reporting [68] four patients, two of whom were dead at the end of two years. Beck,[1] Foran,[60] Heck,[69] and Zinninger,[43] each report a case. All but one of these patients were living at the end of periods varying from six months to a year and a half. Roberts and Kracke [56] report three patients, all of whom died. Fitz-Hugh reported two patients who were alive at the end of two and one-half years. This is a mortality of 50 per cent for the latter nine.

TREATMENT

The treatment has consisted of various and sundry measures, the most of which have been on an empirical basis. Single recoveries have been reported from such measures as quinin[70] and calcium gluconate.[71] A splenectomy[50] was performed in one case without benefit.

Nonspecific therapy in the form of parenteral foreign protein and intramuscular turpentine has been reported with recoveries. Roberts and Kracke[56] have adopted the use of intramuscular injections of turpentine on the basis that sepsis is desirable in promoting a leukocytosis. However, this reasoning would seem to be unsound, since in the experience of the majority sepsis has been believed to be a serious complicating factor. Dameshek[49] and Brooks[72] have reported recoveries following the use of intravenous nonspecific protein. That the leukocytic properties of protein therapy is chemotactic, and not maturative, would seem to lend no theoretical grounds for its use. Also it should be remembered that cases of agranulocytosis have been reported, following administration of foreign protein.[18, 23, 24] The consensus of opinion would seem to be that this form of therapy is without value.

Transfusions have been used by many, and recoveries have been reported. However, conclusions are difficult, as many other therapeutic procedures have generally been used on the same patients. In Harkins'[68] series, nine patients who were treated by transfusion were reported, with a mortality of 55 per cent. However, he concluded that the treatment was of little value. Beck[1] also reports a recovery following transfusion, but, like Harkins, concluded the treatment was of little value. Many others have reported recoveries following transfusion, but in combination with other procedures.

Fisher[73] and Harkins[68] each report a recovery following immunotransfusion. It would seem rather heroic to bleed a donor of known previous bone-marrow dyscrasia, and further there is no evidence that the blood of recovered patients contains immune bodies.

Sabin has shown that transfusion temporarily lowers the rate of erythropoiesis and perhaps granulopoiesis. This fact would seem to be borne out by the experience of Conner,[74] and Jackson,[18] who have reported an actual fall in leukocytes following the procedure.

Although the urge is strong to give blood in this state of leukocytic depletion, there seems to be no logical foundation for its use.

Liver extract is advocated by Foran on the basis of the findings of Murphy, Connery and Goldwater, and Conner, who observed a leukopoiesis in the treatment of pernicious anemia with parenteral liver extract. He treated five patients, with recovery in four, one of whom had several recurrences. Harkins[57] treated two individuals with liver extract, with recovery in one instance. Coggeshall[76] and Silver[41] each treated one case with failure. Jackson's[18] four patients were given liver as well as pentnucleotide, but all of these died. Few have had experience with this form of therapy, and as yet an insufficient number of patients have been reported to allow conclusions other than to say a few have been successfully treated. No contraindications to this form of therapy have been brought to light.

The use of x-ray over the long bones was suggested by Friedemann[77] in 1927. Some three years later Friedmann and Elkeles[78] reported their results on a series of twenty, with a mortality of 47 per cent. These were apparently true agranulocytics. However, as pointed out by Jackson[18] the entire series consisted of forty-three cases, of which twenty-three were excluded because of death within thirty-six hours, or the presence of sepsis or pneumonia. In the entire series the mortality was 82 per cent. Taussig and Schnoebelen[79] treated four cases, with a mortality of 50 per cent. In a résumé of the literature of all cases treated by this means, they found a mortality of 53 per cent. Lichtenstein[55] treated twenty cases, immediate improvement following in seven. A year later all were dead except two, a mortality rate of 90 per cent. Beck[1] reports three cases, with recovery of one. Harkins[57] treated two cases, both resulting in death.

Doan[80] studied the effect of varying small doses of x-ray on myelopoiesis in pigeons. He found no stimulating dose which did not show some prior evidence of myelocytic destruction. As reported by Fiersinger, x-ray is also capable of producing the picture of agranulocytosis—a fact which should not be forgotten.

It would seem from these facts that there is no evidence to recommend x-ray as a therapeutic weapon. It is possible that it may have a deleterious effect.

The arsphenamins were formerly used to some extent earlier in the treatment of the disease. This was on the basis of the observation that Vincent's organisms, frequently found in the throat lesions, were presumed to be etiologic factors. We now recognize them as secondary invaders. Following the report of Farley[17] and the experience of others, which unquestionably demonstrates its depression of the bone marrow in certain instances, the employment of this agent would seem to be irrational.

Adenin sulphate was advocated by Reznikoff[81] on the basis of its known ability to produce a leukocytosis. In 1933 he reported fifteen cases[82] of apparently true agranulocytosis, with a mortality of 26 per cent. His conclusions were conservatively optimistic.

Jackson,[75] having demonstrated the presence of pentnucleotide in the normal human blood, and Doan[83] et al. having demonstrated the ability of nucleic acid and its derivatives to produce a leukocytosis, the former applied these facts therapeutically, and in 1931[75] reported twenty-six cases treated with pentnucleotide, with fourteen recoveries. Recently[18] he has reported on a series of 103 cases, including the original twenty-six, with a mortality of 33 per cent, all patients having been followed to the date of publication. So far as I have been able to ascertain, this is the largest series in which any one therapeutic measure has been employed under controlled conditions and certainly is, by far, the lowest mortality rate reported from any therapeutic procedure.

Baldridge,[50] Doan,[80] Mettier,[62] Bohn,[38] and others have used pentnucleotide with success.

Fitz-Hugh and Comroe,[61] Zinninger,[43] and Harkins[57] report less success. However, their series are small, and there is some question as to whether theirs were all true agranulocytosis.

Jackson[18] advises the administration of 10 cubic centimeters (pentnucleotide, N. N. R.) intramuscularly twice, or preferably three times, daily until the white count has risen and young neutrophiles have appeared. Thereafter 10 cubic centimeters daily should be administered until the white count has remained normal for several days.

The response, when it occurs, takes place about the fourth or fifth day (Doan[80] and Jackson[18]), and is manifest first by the appearance of myelocytes in the blood stream, at times reaching a level as high as 20 per cent. Shortly thereafter mature neutrophiles appear in increasing numbers until a normal white count is reached.

Surgical intervention has been considered by some to be positively contraindicated (Beck[1] and Roberts and Kracke[56]). Others have reported rapid recoveries following opening of abscesses, thoracotomy, amputation of gangrenous extremities, and drainage of purulent adenitis (Thompson and Jackson[18]). Jackson[18] attributes a death to lack of surgical intervention in a patient who had developed a normal blood picture. That an elective procedure should be avoided is evident.

The oral and pharyngeal lesions do best when treated by simple hygienic measures, and all procedures causing trauma to these areas are objectionable.

Based on the known leukotoxic effect of the benzene ring, all drugs containing such a structure should be avoided.

It is hardly necessary to state that adequate nursing, maintenance of nutrition and fluid balance are of the utmost importance.

SUMMARY

That certain chemicals and toxins are capable of producing an agranulocytosis is evident. However, there still remain a group of patients in whom no etiologic agent has been demonstrated. That these may represent an entity is possible.

The pathology of the bone marrow has been reported by some as a hypoplasia of the myeloid tissues. Those who have made a careful study of any considerable group report in the majority of instances a hyperplastic or normal amount of myeloid tissue, but with an absence of forms beyond the stem or "blast" stage of maturation. On the latter findings the theory of "maturation arrest" has been postulated. Other pathologic findings are frequently present, but are considered secondary to toxemia or a complicating sepsis.

The usual clinical picture has been briefly given. It is pointed out that the disease is much more common in women, and occurs most frequently in mid-adult life. The blood picture consists of marked leukopenia and neutropenia, and usually an absence of anemia or thrombopenia, although a minority have reported the presence of anemia and a reduction in platelets. There is usually an absence of any hemorrhagic tendency. Splenomegalia is usually absent and never extreme; and a lymphadenitis, except regional, is most unusual. Ulcerative and gangrenous lesions of the oral and gastro-intestinal tracts are common. Jaundice has been observed not infrequently. Mention is made of a less severe and fulminating type as well as a chronic form. Recurrences following recovery are not uncommon.

The therapeutic measures most frequently employed, consisting of nonspecific therapy, transfusion, liver extract, x-ray, arsphenamin, adenin, and pentnucleotide, have been discussed. It is obvious that there is no specific therapy, but of the agents mentioned, pentnucleotide would seem to offer the best results.

The wisdom of surgical intervention has been briefly discussed. It would seem logical and correct that any complication, with positive indications for necessary surgical interference, should be so treated. Mention is made of a patient who, in the opinion of the author, died because of lack of surgical intervention.

Proper nursing care, maintenance of sufficient fluid intake and an ample caloric intake are factors of the utmost importance.

Woodland Clinic.

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DISCUSSION

Olin H. Garrison, M. D. (411 Thirtieth Street, Oakland).—Doctor Railsback has given us an excellent review of the literature, and has emphasized the important points relating to this interesting disease.

It seems to me that the majority of evidence forces one to the conclusion that agranulocytic angina is a definite disease entity. Certainly a pernicious leukopenia is as logical as a pernicious anemia.

It is fairly well established that this disease may be caused by an idiosyncrasy to certain drugs, especially those containing the benzene ring. It is equally certain, however, that the disease may occur without the ingestion of these drugs. No one, in my series of cases, gave a history of taking drugs.

I have never been impressed with the value of whole-blood transfusions in these cases. I have repeatedly transfused my patients, only to find, on taking a blood count one or two hours later, that there was no change whatsoever in the leukocyte count. Apparently, the injection of pentnucleotid has given the largest number of favorable results. There is one objection, however, to this drug, and that is, that there is a latent period of four or five days before improvement is noted. When the patients are as desperately sick as they usually are, it is very trying to wait for this period of time.

I have recently used intramuscular injections of concentrated liver extract, and felt that it was of definite benefit. Certainly there is no contraindication, and many observers report a leukopoiesis in the treatment of pernicious anemia.

But in a certain number of patients the disease is so fulminating that I do not believe they can be saved with any form of therapy known at the present time.

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Stacy R. Mettier, M. D. (University of California Medical School, San Francisco).—Unfortunately, "agranulocytosis" is a term that has come into rather wide usage. It is a poor one to use, because it fails to describe definitely a disease process. Actually, agranulocytosis means a leukocytosis of agranular cells. Perhaps the words "neutropenia" or "granulocytopenia" would be more descriptive of the reduced neutrophilic elements in the circulating blood.

Neutropenia may be associated with many conditions, and may vary in frequency from 11.67 per cent of University of California Hospital entries over a ten-year period, as reported by this author, to 23 per cent, as recorded by Roberts and Kracke from their office practice. This large group of cases is comprised mostly of various infections, neoplasms, lymphomas, or results from the prolonged use of x-ray or radium and drugs that destroy blood-forming tissue or inhibit leukopoiesis. From these may be separated a small group of cases characterized by severe neutropenia, lymphopenia and associated infection of the mucosa of the oral cavity, gastro-intestinal tract or vagina. It is in this latter group that amidopyrin seems implicated. Here leukopoiesis in general is depressed, and granulopoiesis in particular. So far as we have learned at the present time, failure of complete maturation of leukocytes occurs, but in contradistinction to leukemia or pernicious anemia the bone marrow remains relatively hypoplastic rather than becoming hyperplastic. In a restricted sense, the term "agranulocytosis," as described by Schultz, or malignant leukopenia, may best designate this condition until we learn more about its exact identity.

It is only within recent years that leukopenia has attracted sufficient interest to warrant a classification. In our textbooks of medicine of only a few years ago, little mention was made of this subject. Perhaps we would have a better understanding of the problem of classifying leukopenia by designating it as benign or malignant leukopenia of known or unknown etiology or, even better, by speaking of depressed function of leukopoiesis, whatever may be the cause.

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Fred H. Kruse, M. D. (384 Post Street, San Francisco).—Doctor Railsback has given an interesting review of this subject of agranulocytosis, emphasizing the characteristic findings in the blood of neutropenia, rather than any form of leukopenia; a septic type of fever, and a local focus of infection either in the throat, skin, or internal viscera. Such a summary is invaluable to the general medical man, particularly on such a subject as agranulocytosis or malignant neutropenia, in reference to which the literary contributions in the last few years have been continuous, voluminous and conflicting, both as to etiology and treatment.

Certainly every suggestion in reference to the disease grips the attention of the general profession; because the throat specialist, the surgeon, the practitioner, the internist, the hematologist, and the pathologist yearly search frantically for new aids as a sorely stricken patient spurs their endeavors, which generally culminate in a sense of futility and helplessness.

I can well recall my earliest experiences with the disease back in 1918 and 1919. The clinical picture then recognized included gangrenous throat, septic fever, and a low white count in a practically moribund patient. Throat smears disclosed Vincent's organisms (spirochetes and fusiform bacilli), and for that reason neosalvarsan was given intravenously, supplemented later by blood transfusions, and, too frequently, by extraction of teeth if the gangrenous lesion extended to the gums.

As my experience has widened, it has seemed evident to me that in this clinical syndrome we encounter three types of cases, namely, (1) relatively mild cases in patients who, though very acutely sick, get well shortly no matter what the therapy is; (2) patients with a more prolonged illness, not so acutely sick who, even while in the hospital, have remissions and relapses which may continue over a period of years; and (3) those fulminating septic cases, with a rapid downward course from the start and no sign of a remission no matter what the therapy is.

Whether No. 1 later on shades insidiously into No. 2, and whether No. 3 is only the terminal relapse of the No. 2 stage, which had escaped previous recognition is, of course, possible. At any rate, the success of our therapy may depend pretty much upon the stage at which we happen to encounter our patient.

I also want to emphasize the three most common and characteristic local types of lesions which I have encountered in these agranulocytic cases. They are the gangrenous throat or gangrenous gums, one often shading into the other; scattered lesions of the skin, vesicular, bullous or furuncular in appearance, and finally brawny indurations about the rectum with terminal gangrenous sloughing. The surgeon must be exceedingly cautious in attacking any of these lesions. And while on this subject, it has appeared illogical to me to attempt to bring out a granulocytic response by producing a sterile abscess, such as by turpentine.

In treatment, certainly the pentnucleotids must be used, but so far they have proved only a help, not a cure. The dangers of transfusion in depressing the neutrophilic response must always be considered. I have thought small transfusions at times helpful. I must admit that I have been more intrigued by the possibilities of parenteral liver therapy than most of the other procedures, and consistently use it in all such cases.

This has been not only on account of the work of Murphy et al., but because of the favorable response of casual cases of leukopenia, with or without neutropenia, which I have encountered in practice and been unable to explain adequately. A number of such cases with low white counts, asthenia, cold extremities, etc., definitely improve on parenteral liver therapy. Are they latent cases of agranulocytosis?

THE IMPORTANCE OF LESIONS OF THE INTERVERTEBRAL DISCS IN RELATION TO TRAUMA[*]

By Wilbur Bailey, M.D.
and
Richard T. Taylor, M.D.
Los Angeles

Discussion *by Lowell S. Goin, M.D., Los Angeles; Robert S. Stone, M.D., San Francisco; Francis M. McKeever, M.D., Los Angeles.*

Lesions of the intervertebral discs have recently attracted considerable interest. From the standpoint of industrial medicine, such lesions have importance because they are frequently observed. When there has been a history of trauma in which the spine might have been injured, and these lesions are seen on an x-ray film, the question at once arises as to whether they were preexistent or actually the direct result of trauma.

The work of Schmorl,[1] who since 1925 has examined at autopsy almost ten thousand spines, has given the greatest impetus to interest in lesions of the intervertebral discs; but the subject is by no means a new one, for in 1858 Luschka[2] wrote what is probably the best account of spinal anatomy to be found in the literature, in which he described certain pathologic changes, including posterior prolapse of the intervertebral disc.

ANATOMY

The central portion of the end surface of an adult vertebral body shows in a position corresponding to the nucleus pulposus, a disc of what appears to be compact bone. On closer examination, however, this disc is seen to be perforated by numerous very fine holes which represent the tiny foramina through which the nutrient vessels pass. It can easily be understood how, if the thin disc of cartilage which covers these tiny holes and constitutes the boundary between the bone and the nucleus pulposus were to fail, this perforated bone would not prevent the invasion of prolapsing nuclear substance in the same way which could be expected if the bone had a true cortex, such as is present in other articulating surfaces.

The intervertebral disc itself can be considered as being composed of three parts: the cartilage plates enclosing it above and below, the nucleus pulposus, and the annulus lamellosus.

The articular cartilages are two thin plates of ordinary hyaline cartilage, placed between the bony surface and the fibrous disc. Laterally, these plates disappear into the fibers of the discs. They are present, therefore, only over the porous central portion of the vertebral bodies.

The intervertebral disc proper consists of an annulus lamellosus—a fibrocartilaginous ring—which surrounds a central collection of gelatinous substance, the nucleus pulposus. The nucleus pulposus is of almost fluid consistency, but it is exceedingly firm and elastic. Judging by its behavior in cut section, the nucleus pulposus is under considerable pressure from its own elastic turgor. The nucleus tissue, when examined microscopically, has all the appearances of that fetal structure, the notochord, of which it doubtless represents a remnant.

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[*] Read before the Industrial Medicine and Surgery Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

ETIOLOGIC FACTORS

Primarily it must be remembered that, although the spine of man is not remarkably different from that of the four-footed animals, it nevertheless has not only to be constructed for the greatest possible flexibility, but, in addition, it must bear the body weight acting along the series of vertebrae in a vertical direction. In the latter feature the human spine is unique, and of all the human organs the spine is probably most poorly adapted to the erect position used by man.

The chief forces to be withstood by the human spine are two, both of them very severe in men whose occupations involve strong bodily work: pressure, mostly intermittent, in the form of powerful mechanical shocks in a vertical direction, and tension. The first force acts mostly upon the broad surfaces of the vertebrae, and is distributed by the spring-like nuclei pulposi; the second is the result of all sorts of flexion and torsion, the burden of which is carried by the strong bands of the annulus fibrosus. In life these strains are intermittent and inconstant, and it is for this reason that the spine never seems to compensate for the increased wear and tear as might be expected on physiologic principles.

With this type of more or less continuous trauma, combined with the fact that there is a poor blood supply to the adult intervertebral discs, it is not surprising that, as Beadle[3] points out, degenerative changes which are to continue throughout life start early and become progressively more severe. The degenerative changes which interest us most are the presence of breaks in the cartilage plates which cover the end surfaces of the vertebral bodies. If a number of adult intervertebral discs are examined microscopically, a large proportion of these cartilage plates which represent the boundary between the disc and the adjacent vertebra will be found to have definite breaks in continuity at certain points.

These breaks are found with greater frequency in older individuals, and although their etiology is not certain, it seems likely, from the irregular jagged shape which these tears assume, that they have resulted from an overstretching of the cartilage and hence are part of the degenerative process caused by the low-grade trauma, which has been mentioned previously.

Such lesions, according to Schmorl, who made a study of three thousand cases, occur in 40 per cent of all males and 20 per cent of all females between the ages of eighteen and fifty-nine. Above the age of sixty, the ratio is approximately reversed, and only 23 per cent of the males have nuclear prolapses while 44.3 per cent of the females are so affected. Schmorl attributes this excess of males in early life to the fact that men are more active and work harder during that period. After the retiring age the male figures are seen to decrease. That this decrease does not occur in females after the age of sixty can perhaps be accounted for by the fact that women continue to be active in the burden of housekeeping, scrubbing, and cleaning after this age.

TYPES OF LESIONS

Frequently, even in adolescent spines, there is an expansion in nuclear regions of the disc. Such expansions may be the result of an increased turgor in the nucleus pulposus or, less likely, a lessened resistance of the bone. In any event, the cartilage plate at such points of expansion is thinned out and frequently ruptures. The process, however, is a slow and progressive one, and from its characteristics is obviously not connected with sudden trauma.

Not all ruptures of the nucleus pulposus are due to the same cause. Calvé[4] points out that there should be a distinction made between the disc hernias of juveniles and those seen in later life. He shows that in many cases nucleus herniations are found, not in isolated vertebrae, but in a whole series of vertebrae in the same spine, frequently in combination with the type of vertebral epiphysitis described by Scheuermann. Calvé feels that in these cases of the "painful kyphosis of adolescents" and underlying decalcification of the bone, followed by a degeneration of the cartilage, probably explains the presence of such nuclear hernias. He goes further to point out that when there are multiple points of herniation occurring in the course followed by the embryonic notochord, it is likely that a congenital weakness at this point is the causal factor.

Nuclear herniations in older spines are somewhat different. In the first place, the process is brought about by the severe degrees of osteoporosis which occur as a concomitant of old age. The cartilage plates in certain cases rupture and allow a nucleus prolapse to occur. The process, however, will usually be localized to single discs in which the cartilage degeneration and consequent susceptibility to tears have been most pronounced.

Reactive changes in such prolapses begin almost immediately. Primarily, blood vessels grow into the prolapsed nucleus pulposus material and soon convert it into cartilage. Reactive changes simultaneously occur in the bone, however, so that the invasion is soon checked by a bony wall. This wall can clearly be seen in many cases and is of considerable importance from the standpoint of industrial medicine; for it is quite obvious that such a bony wall requires time for its formation, and the mere presence of such a bone reaction is sufficient to rule out a recent injury as the cause of the lesion. It is in fact very probable that early nuclear prolapses could not be detected by radiographic means until a bone reaction occurred. Chasin,[6] in an instructive experiment demonstrated that in the formation of a roentgenogram the compact layer of the vertebral body is most important. If the entire spongiosa be removed, and the defect caused by the removal be filled by paraffin, which is of the same density as the soft tissues, no defects can be recognized in roentgenograms of the specimen. Likewise, quite large defects of the compact substance may not be visible unless the projection is such that the axis of the defect is parallel to the central ray.

Just how long it takes for a prolapse and the concomitant reaction to occur we cannot say, for, with the exception of a case described by Calvé,[5] the progress of a nucleus herniation has apparently not been followed over an appreciable period of time. In this case the first examination showed only an adolescent kyphosis with a concomitant epiphysitis of the Scheuermann type. Two years later a few small nuclear hernias had made their appearance, but six years later there were a number of irregular nucleus pulposus hernias present while all signs of the epiphysitis had practically vanished.

When a sufficient amount of the nucleus pulposus herniates out of the intervertebral disc, the stature of the disc is diminished and the vertebral bodies approach each other. Where they come in contact, or almost so, osteo-arthrotic fringes appear along their borders. Under such conditions the direction taken by the hernia is of great importance. In the case of the intraspongious hernias which have already been discussed, the prolapse is seldom great enough to cause a marked loss of intervertebral disc stature. Much larger herniations occur, however, often as the direct result of severe trauma in which the disc stature may be markedly shortened.

Under these conditions if the herniating substance projects dorsally into the spinal canal, paraplegia and similar serious neurologic disturbances may at once be manifested as a result of pressure on the spinal cord. Of these dorsally prolapsing hernias, Mixter and Barr [7,8] found nineteen cases, all controlled by operation or autopsy, in which histologic examination of the herniating substance showed that it was composed of disc material. In the older literature these cases were labeled true neoplasms, most of them being called chondromas of the disc. True chondromas of the disc projecting into the spinal canal do occur, but they are rare. Furthermore, they would not be apt to cause narrowing of the disc stature, whereas the nucleus hernias may. An excellent description of the surgical pathology and clinical findings of dorsal herniation of disc substance is given by Dandy.[9]

Of considerable importance was the fact that most of these hernias could be directly traced to severe trauma.

In another group of cases the prolapsing nuclear substance escapes in another direction than dorsally and, therefore, provokes a train of symptoms which originate because the vertebral bodies approach each other too closely, and because, consequently, the lumens of the foramina for the spinal nerves are so diminished that there is actual pressure on these nerves.

Because the lumbosacral disc is located at a point where mobility of the spine is greatest, where the load is heaviest, and where congenital anomalies are the most frequent, it is the most frequent disc to undergo such changes. Williams[10] in 1931 reviewed eighty cases of sciatica, in which 74 per cent showed, as the only change visible roentgenographically, a narrowed lumbosacral disc with a localized osteo-arthritic reaction at this point. These cases occurred chiefly in young adults. The average age of onset of symptoms was thirty. At times a history of a definite accident, such as sitting down on a tennis court, etc., could be obtained, but in many cases the condition was discovered with no such history.

A clear lateral x-ray of the lumbosacral junction is extremely important and cannot be overemphasized. With careful technique, an area of osteo-arthrotic involvement of the lateral facets, as well as the lipping of the adjacent bony margins of the vertebral bodies, can be demonstrated. Both of these changes obstruct the intervertebral foramina.

The clinical picture of low-back pain, marked muscle spasm in the lumbar region and tenderness over the sacro-iliac region, without actual sciatic irritation, can be understood when one remembers that the quadratus lumborum and multifidus muscles receive a part of their innervation from the fifth lumbar nerve, which makes its exit from the spinal canal through the lumbosacral intervertebral foramina, the lumen of which has been narrowed because of the abnormally close position of the vertebral bodies. In the early cases no arthrotic lipping is seen around the opposing vertebral bodies, but later this fringing occurs and often with it comes sciatic pain.

INTERVERTEBRAL DISC CALCIFICATION

Trauma is mentioned by some authors as one of the causes of nucleus pulposus calcification. The usual cause, however, is probably to be found in the degeneration of the disc, which follows the low-grade trauma to which the spine is exposed in a lifetime of wear and tear. Calcification of the nucleus pulposus is frequently found accidentally and is not in itself symptom-producing.

COMMENT

The intervertebral disc lesions which are most likely to be attributed to trauma are herniations of the nucleus pulposus. These lesions may be divided into two groups:

1. Herniations into the vertebral bodies—the so-called intraspongious type.

2. Herniations of the nucleus or disc material in any other direction.

The intraspongious hernias may be further divided according to the age period. In early life these hernias may appear as a concomitant of the type of epiphysitis described by Scheuermann, or as multiple herniations in the spine in the course of the notochord, which apparently form on the basis of a congenital weakness. In later life, intraspongious hernias form as a result of degenerative changes due to the low-grade trauma of wear and tear, and not as a result of sudden trauma. It is to be remembered, from the standpoint of industrial medicine in this connection, that nearly all early intraspongious hernias cannot be seen radiographically. It is not until a bony wall is formed in the process of reaction by the invaded bone that roentgenographic detection is possible. The time interval necessary for this bony reaction to occur frequently effectively rules out the possibility that recent trauma was an etiologic factor. In our own series and in the literature we have not been able to find any clear-cut cases in which pain or other significant symptomatology could definitely be attributed to intraspongious nuclear herniation. In nearly all the cases in the literature in which pain has been ascribed to such a lesion, there is also a concomitant osteo-arthrosis or other degenerative lesion, which might be capable of pain production.

The situation is entirely different, however, if the herniation is accompanied by fracture, or if the herniation is into the spinal canal or in any other direction in a sufficient amount to allow the vertebral bodies to approximate each other so closely that the foramina of the spinal nerves are diminished in size. Such reduction in disc stature is especially prone to occur at the lumbosacral disc often after a fairly clear history of trauma. In such cases low-back pain is frequently severe and persistent.

When dorsal herniation of the nucleus pulposus or a fragment of the intervertebral disc occurs, the history of preceding trauma is often quite clear and the resultant symptomatology from pressure on the spinal cord quite severe.

CONCLUSIONS

1. The usual herniation of the nucleus pulposus is into the vertebral body. This so-called intraspongious type of herniation is one of the concomitants of the degenerative process due to the low-grade trauma of wear and tear, and is very seldom directly related to sudden trauma.

2. Herniations of the nucleus pulposus in other directions than into the vertebral bodies are often definitely related to sudden trauma. The relationship varies according to the extent and type of the lesion. In cases of such herniation in the lumbosacral region, a clear history of precipitating trauma is frequently but not always obtainable. In cases of dorsal herniation of portions of the disc or nucleus pulposus, the history of sudden trauma is usually quite clear-cut.

1212 Shatto Street.

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DISCUSSION

Lowell S. Goin, M. D. (1930 Wilshire Boulevard, Los Angeles).—This is a valuable and interesting contribution to our knowledge of an important subject. It is a very common experience to review roentgenograms of a spine, showing the characteristic cup-shaped indentations of the vertebral articular surfaces, and to learn that these have been interpreted as atypical compression fractures, new growths, or what-not. It is evident that a more widespread comprehension of the nature and mechanism of this condition is extremely desirable.

There is a question in my mind as to whether these ruptures or herniations ever occur from trauma only; whether all have not a background of disease? Certainly, the existence of an osteochondritis (of which Perthes' disease and the adolescent sacro-iliac are outstanding examples) would predispose to rupture of the nucleus and its invagination with the vertebral body. That this could occur when the bony plates are sound and healthy is not so clear.

The physical mechanism is simple: the nucleus pulposus, although a gelatinous substance, obeys the laws of hydrostatics, one of which is that fluid is incompressible. It is this law that underlies the operation of hydraulic presses, elevators, and the like. If the tension within the lamellar ring is suddenly increased beyond the limit of safety, it is obvious that since the fluid content (the nucleus) cannot be compressed, something must give way, and this something is the thin plate of bone forming the articular surface of the vertebra.

The essayists' point that the formation of a bony wall (itself almost a necessity if the condition is to be recognized) requires time, is a good one. It is probable that none of these recognized herniations are the result of recent trauma.

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Robert S. Stone, M. D. (University of California Hospital, San Francisco).—The authors are to be congratulated on presenting this subject before us at this meeting in such a complete and yet concise form. The subject is timely in that the lesions of the intervertebral discs are assuming greater prominence daily, and will, with the accumulation of knowledge and articles which are now appearing on the subject come more and more into question in industrial and other accident cases. The subject is, therefore, of even greater interest than the accumulation of knowledge and the better care of the patients themselves.

The bony structure of the spine is subject to so many variations that, when roentgenograms of spines are studied by inexperienced physicians, many of the changes seen are interpreted in the light of an accident that has happened to the patient recently, rather than in the light of those changes which may be found normally in any spine without accident or trauma. This applies particularly to the small nuclear herniations which have been described as appearing in children, and in many adults with no symptoms associated with them. Too often, when they are found, an attempt is made to correlate all the patient's symptoms with the findings, rather than to find the real cause of the trouble.

To my mind the most important pathological condition to which our attention has been called in the paper has been that of the protrusion of a portion of the intervertebral discs into the spinal canal. These protrusions can give rise to symptoms which simulate spinal cord tumor. If the industrial surgeon or neurosurgeon operating upon such cords is not informed in advance of the possibility of the herniation of some of the intervertebral cartilage, he can conceivably fail to find the real cause of the patient's symptoms. I wish to call attention to the fact that it is perfectly possible to have cartilaginous material protruded into the spinal canal without any narrowing of the intervertebral discs. These cases make it difficult to decide whether the trouble is due to herniation of the discs or not.

The demonstration of the cartilaginous material in the spinal canal can be accomplished very frequently by putting lipiodol in the spinal canal, and then examining the patient by means of a horizontal beam of x-rays, having the patient lie in the prone position at such an angle that the lipiodol lies along the anterior portion of the spinal canal in the region in question and, therefore, against the posterior part of the bodies of the vertebrae. By this method we have been able to demonstrate some protrusions of cartilaginous substance which would otherwise have gone undetected prior to operation. The value of the definite localization by this method is that it enables the operator to concentrate his attention on one disc, instead of having to expose and examine several vertebrae and discs.

For the benefit of those of us who do not read German or French freely, I would like to call attention particularly to the third reference of the authors, namely, the article by Armand A. Beadle. This I regard as the best exposition in English of the subject under consideration.

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Francis M. McKeever, M. D. (1136 West Sixth Street, Los Angeles).—Doctors Taylor and Bailey have presented a clear account of the findings on which a diagnosis of nucleus pulposus herniation can be based. Sensory, motor or reflex changes may show the segmental location of the pathologic change, but to localize this pathology in the nucleus pulposus is impossible without positive radiographic evidence of a disturbance in its volume. Either (1) a decrease in the height of the intervertebral disc or (2) an area of condensation in the spongiosa of the vertebral body adjacent to the disc must be present in the skiagram.

Except in the rare instance where there is an obvious roentgen narrowing of the intervertebral disc, with a history of recent trauma and, with or without neurological signs, it is impossible to assign as a causative factor of the lesion any one definite injury.

Roentgen and pathologic studies of vertebral body fractures corroborate the fact that a herniation of nucleus substance into the spongiosa must have occurred many months before it can be demonstrated on the roentgenogram. Eburnation in spongiosa following fractures is rarely evident sooner than twelve months after injury, and it is reasonable to assume that bone formation occurs even more slowly about a small spongiosa herniation. By the time roentgen diagnosis is possible in this type of nucleus pulposus herniation, the individual has become adjusted to the healed pathology and may be entirely symptom free.

It is to be remembered also that small spongiosa herniations are not infrequently an accidental roentgen finding with no symptoms referable to the area in which they are present. Until some means of earlier diagnosis is available, it would seem that too much significance must not be attributed to small spongiosa herniations when there is no evidence of narrowing of the intervertebral disc.

Narrowing of the disc between the last lumbar vertebra and the sacrum, with clinical symptoms and signs referable to this region, may require surgical measures. The fifth lumbar nerve is the largest trunk entering the lumbosacral plexus and escapes the bony case of the vertebral canal through relatively the smallest foramen, its margin of safety being nil. Any shrinkage in the volume of the lumbosacral intervertebral disc may lead to constant nerve-root irritation, with either low-back pain or the sciatic syndrome as long as motion is possible at the lumbosacral articulations. Under such conditions, obliteration of motion at the lumbosacral junction by arthrodesis of the last lumbar vertebra to the sacrum may be the only way to obviate the irritation of the nerve trunk and effect relief.

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Doctor Bailey (Closing).—The intraspongious type of herniation of the nucleus pulposus is by no means infrequent.

Herniation of portions of the intervertebral disc dorsally into the spinal canal still remains a rare lesion, however. Mixter of Boston has recently published a series of thirty-four cases in which, by means of injecting comparatively large amounts of lipiodol (five cubic centimeters) into the spinal canal, dorsal herniation of the disc substance could be demonstrated radiographically. He feels that such a lesion in the lower lumbar region may often cause intractable sciatic pain.

THE LURE OF MEDICAL HISTORY[†]

RATIONAL OR LIBERAL MEDICINE[*][‡]

AS UNDERSTOOD SOME "FIFTY YEARS AGO"

By Joseph P. Widney, M.D.
Los Angeles

PART I

I HAVE been asked to deliver an address upon the science of medicine. I have chosen as the heading of the address, Rational Medicine.

What is it? To understand fully what is meant by the term you must know the history of the science which it designates; for it has a history, running back through the centuries. Like every other great branch of human knowledge, time has been one of the elements in its growth. It is old: and yet it is new. It is old in that it represents today the gathered wisdom, the accumulated results, of ages of human thought and human experimentation. It is new in that the investigation does not cease, but rather with increasing momentum it is pushing its way into every newly discovered realm of collateral science to add to its store of knowledge, and throw more light upon the many problems of disease which yet remain unsolved before it.

HISTORY OF MEDICINE

What is its history?

To trace it you must go back side by side with the other great lines of human inquiry to the infancy of the race; for with man came into the world disease and death. In his birth were the seeds of dissolution, and life became a battlefield in which the elements tending to build up and perpetuate the human body and those tending to tear down and destroy, were ever at war with each other. Only the keenness of the human intellect, spurred on by the inborn love of life, was arrayed upon the side of life, and enlisted in the struggle against the forces of disease and death.

[†] A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

[*] An address delivered by J. P. Widney, A.M., M.D., dean of the College of Medicine of the University of Southern California, before the Unity Club of Los Angeles.

[‡] Reprint from the *Southern California Practitioner* of April, 1888. (See also editorial comments on page 461 of this issue of California and Western Medicine.)

It is probable that with the first pang of pain which came to man came also the thought and the attempt to do somewhat to ease it; and an added bitterness was lent to the first tear shed over a human grave by the thought, "Might not something have been done to stay the hand of death?" And born of these pangs came doubtless rude, blundering, yet planned efforts to that end. And this was medicine. Not a science as yet. It was still too crude, too infantile. And men had not as yet thought far enough in advance to even conceive of the idea of science. Yet, in so far as it involved thought, and plan, and design, and the adaptation of means to an end, it was the beginning of rational medicine.

But this had no history. The human race was already far on in the journey of civilization when history begins.

THE WRITTEN HISTORY OF MEDICINE

The written history of medicine, and its consecutive development, may be said to date from the fourth century before Christ, twenty-three centuries ago. It comes to us in direct line from those leaders of the mental life of the ancient world, the Greeks. While there are fragments of other writings dating from some centuries earlier among the Egyptians, and so-called systems of medicine of equally ancient date among the Hindus and other races, these never developed beyond their infantile stage of growth, and have contributed little, if any, to the medical knowledge of the world.

The Greeks, even at that early day, had sacred hospitals in which the sick received medical treatment. The two professions of the priesthood and medicine were then united, medicine being the special work of certain lines of the priesthood, and to it were devoted certain temples.

Hippocrates, the wise old man of Cos, a priest-physician, and himself born of a long line of priest-physicians, left a series of writings upon medical topics, which are even yet preserved in the literature of the profession. I have in my library these works, and while containing, of course, much that time has shown to be unfounded and puerile, they yet contain also many things which show him to have been a keen observer of disease, and to have discerned dimly much of truth. In these writings is to be seen one characteristic of true science, a breaking away from the superstitions of the age, and a desire to investigate the phenomena of disease as matters of reason. A comparison with contemporary branches of human knowledge shows that medicine stood fairly abreast of them in its stage of development.

Without attempting to follow medicine with any degree of closeness through the succeeding centuries, it is enough briefly to say that it passed with the spread of the Greek race around the east shores of the Mediterranean, having large schools in Alexandria; it shared in such scientific life as came to Rome; then felt the great scientific awakening which came with the flowering of the Arab race under Mohammedanism, the caliphs building and supporting large schools of medicine in Asia Minor; then, with the decadence of the Arab race and the eclipse of Mohammedanism under the Mongol Turk, it underwent the vicissitudes which came to the human race during what have been termed the Dark or Middle Ages.

DEFICIENCIES IN ANCIENT MEDICINE

In summing up the work done by ancient medicine, and its contributions to the common fund of medical knowledge, these defects may be noted as, with occasional exceptions, characteristic of it: a lack of inductive methods in its reasoning, in other words the basing of its theories too much upon speculation, too little upon a proper basis of facts: a failure to prosecute with sufficient thoroughness those groundworks of all scientific medicine, the study of anatomy and physiology; yet, from the former of these it was in a measure debarred by prevailing religious prejudices: a failure to study morbid anatomy, that is, the changes made in the tissues and organs of the body by disease: a failure to compile systematically the phenomena of disease, and tabulate results.

Yet this style of work is hardly to be expected of the medicine of that age, as it was attempted in no other branch of science. The human mind was not as yet ready for that style of work. Science in all its departments, whether astronomy, chemistry, or others, was as yet only in the speculative age. Indeed, it seems to be characteristic of the earlier workings of the human mind, whether in the childhood of the race or of the individual, to theorize first, to search for the facts afterward. The careful, painstaking, scientific work of humanity was yet to be. It was still the age of myths, of fables, of speculation. Then, too, the necessary collateral sciences were also yet in their infancy. Men were still searching for the elixir of life and for the philosopher's stone. Even ages later they were still to wander hopefully over half a continent in quest of the Fountain of Youth. This tendency of the ancient world to build up theories and frame speculations, without a sufficient groundwork of accumulated facts upon which to base them, is shown in the elaborate yet profitless ratiocination of Plato's dialogues.

Yet, withal, progress was made. Men were gradually learning the scientific weakness which underlay theorizing without a sufficient groundwork of facts. Then, to, they were learning, as they struggled along in their rather aimless fashion, that certain tracks were only blind roads, leading nowhere, and need not be traversed again. They were gradually learning that, in certain directions, there is a limit to the knowable, and that to push investigation upon these lines is only waste and profitless labor. And most of all, and most valuable of all, they were patiently, age by age, accumulating a store of facts, things established by actual observation and test, such as the plainer principles of anatomy and physiology, the symptoms of disease, and its normal course and termination, a knowledge of certain drugs, and of their effects, the laws of epidemics, some of the relationships of climate and disease, some principles of hygiene, some of the rudiments of surgery. In this way they were laying a foundation upon which might be built the inductive medical science of a later day. Then, too, allied sciences, such as botany, chemistry, pharmacy, microscopy, were developing to that point where they might lend their aid to the upbuilding of that rational medicine which was to arise from, and in a measure out of, the empirical work of all the preceding centuries.

PLACE TODAY [1888] OF RATIONAL MEDICINE AS A SCIENCE

How then does rational or liberal medicine stand today in its work as a science?

First, what has it done? What, so to speak, is its present stock in trade?

In answer it may be said that it has this store of accumulated and ever accumulating facts, which it has been slowly and toilsomely gathering during all these many centuries. Out of the vast range of its testing and experimentation, some things have remained as established. It has been literally obeying the injunction of the Scriptures, "Prove all things; hold fast that which is good." Like the science of mechanics, which, with all its vain searchings after perpetual motion, has yet proven and held fast to the wheel, the lever, the pulley, the inclined plane. This store of facts, which may be said to have been proven, is one, and no small, gain.

Then with the training which has come with these centuries of work, it has developed more accurate methods of investigation and of scientific inquiry. It has been learning how to work. It has also gained a better knowledge of the limits of the knowable; has learned, as before stated, that certain lines of apparent scientific investigation are only blind paths leading nowhere, and consequently it need not again tread them. In this way it is prepared to avoid much of the waste labor of the past. It has learned no longer to accept theories unless substantiated by an established groundwork of facts.

It has placed itself squarely upon the basis of an inductive science, reasoning only from the known to the unknown.

RATIONAL MEDICINE'S PROGRAM FOR THE FUTURE

What is the line of work as laid out by rational medicine for itself in the future—the line of investigation, of experimentation, and of study?

Anatomy, what may be called surgical anatomy, has its leading facts now well established, but microscopic anatomy and histology afford as yet comparatively unworked fields. This department of fine anatomy is in the line of future investigation.

Almost the same general statement may be made with regard to physiology, for while the function, the work done, by the organs and tissues of the body is fairly well understood, very much yet remains to be discovered before our knowledge in this direction may be said to be even tolerably complete. The difficulties surrounding this field of work are much greater than those to be overcome in the further study of anatomy; for while anatomy is to be studied upon the dead body, with the knife at our command, physiology has to be studied through the living body with all the complicated processes of life going ceaselessly on.

The comparative anatomy and physiology of man and the higher animals is another field in which much may be done, for there are many principles, and many diseases, which they seem to have in common, and which may eventually be found to throw light upon each other.

Then comes the natural history of diseases, their habitat, causation—and under this heading is included the whole subject of microbes, bacilli, and disease germs in general—the laws of existence and development of disease, duration, natural termination, statistics of mortality, methods of propagation, contagion, pathologic changes produced by disease in the human body, manner of causing death, further investigation of the action of drugs both new and old, and the search for new remedial agents.

RATIONAL MEDICINE'S PLAN TO COMBAT DISEASE

What is the working plan of rational medicine in the management of disease?

Its first aim is to prevent disease—this subject being classed in works on medicine under the heading of Preventive Medicine. In this respect medicine stands in rather an anomalous position as compared with other professions. Its first work is a constant striving to destroy the grounds for its own existence.

This it is doing by elaborating and enunciating the principles of hygiene, of sanitation, of quarantine, of inoculation, of vaccination, of antisepsis.

Its second aim falls under the heading of Curative Medicine, the remedial management of disease when it has developed in the human body.

In this, the first effort is to eliminate, or remove, the cause when possible. As an illustration may be instanced, the emetic administered in case of an ingested poison, or to unload the oppressed and cramped stomach of a mass of soured food when digestion has for some cause failed of its work, and pain results; or, may be instanced, the purgative given to clear the bowels of their irritating contents when the undigested food has passed beyond the stomach, and colic supervenes.

Failing of the effort to remove the cause from the body, its next attempt is to destroy or counteract, if possible, that cause within the body. As illustration may be given the alkali administered to chemically neutralize the acid of a sudden indigestion, or of an imperfect digestion, until other measures may have time to remove the cause of the acidity. Also may be mentioned the action of quinin on malarious affections, or of the antiseptic to counteract the tendency to putridity.

Its work may, in another class of cases, be termed "assistant medicine." As an illustration, may be mentioned the muriatic acid and the pepsin given to aid the process of digestion where the stomach is not secreting a sufficiency of these substances to carry on efficiently the digestive work; or the laxative given to arouse a torpid bowel to proper action; or the expectorant administered to stimulate the secretion of mucus in a bronchial tube.

In large part, however, its action is that of guiding, or directing, or assisting the powers of the body through the course of a disease. Many diseases have their natural course, which they will run, are self-limiting, and cannot be cut short by the use of drugs. The various continued fevers may be given as illustrations. In this class the work which rational medicine lays down for itself is to assist nature to carry the battle with disease to a favorable issue. It aims to guide, to support, to prevent complications. But all the while it never gives up the search after the hidden cause, which, if found, it may hope to destroy.

Yet there still remains another class of diseases in which cure is hopeless: in which there can be but one termination, death. Still, even with this class, there remains a work for medicine to do, for now comes in play that phase of its powers which may be termed "alleviative medicine." The failing forces of the body are to be supported, so that life may be prolonged. Pain is to be eased, so that life when so prolonged may be made endurable. And then when life may no longer be prolonged, when the battle has been fought and lost, when the end draws near, and man comes to pass through the valley of the shadow, one last office yet remains for rational medicine to perform, *euthanasia,* easing the pangs of dissolution, soothing the death agony, and smoothing the rugged pathway for the feet of poor broken mortality.

RATIONAL MEDICINE HAS NO DOGMAS

I have endeavored to give you a picture of the field, and the work, of what I have denominated rational or regular medicine.

But you say, you have told us nothing of theories, of dogmas. You have not given us its creed.

It has none. And in this very fact lies its strength. Herein is the omen of a hopeful future. It has outgrown such things. It is now out upon a higher, broader plane. Practically it has no general theories. It avoids them. It has felt too much of the evil of them in the earlier stages of its own development. There was a time when it had its creeds; when it vainly thought that a broad science could be expressed in a single formula. Men so thought also in mechanics, in chemistry, in astronomy. And they, too, with the scientific physician, have learned that while such things are attractive, they are misleading. They seem so simple, and so plain; and in medicine, as in other sciences, such a single formula would render the perplexing questions with which one meets, so simple; and generalizing is so much pleasanter than delving after facts; yet herein science has never found the pathway to truth. Medicine has grown more modest with the mistakes and the premature generalization of all these ages. It is no longer ashamed or afraid to say, "I do not know."

In so varied a field, with a causation so varied, and apparently so ever shifting, *is* any one general and final theory of disease and its treatment possible? With the present light which we are able to throw upon the subject the answer would seem necessarily to be that it is not; that the field must ever remain a composite one; and that the men or the schools which frame one single law for guidance do so because of a narrowness of vision which fails to take in the whole field, which can only see one aspect of a complex or varied problem, and which yet judges this to be all. For single diseases, or for allied groups or families of diseases, theories may be formed, subject, however, to change with each coming of new light; but so far the kinship has not been shown to be sufficiently widespread to justify the framing of one general law to cover either the causation or the cure of disease.

I have said that rational medicine has, in a certain sense, no one creed. This much only, it now generalizes. In pathology its only guiding law is—search for the cause of the disease; in therapeutics, or the management of disease—any means that will effect a cure. It is not bound or restricted, and refuses to so bind or restrict itself, either as to means or the manner of using the means.

(To be concluded)

* * *

ADDENDA

TO BIOGRAPHICAL SKETCH OF DR. JOSEPH P. WIDNEY

THE interesting biographical sketches of Dr. Joseph P. Widney, printed in California and Western Medicine for April (pages 251 and 292), and May (page 396), evidently stimulating interest in the historical background of the California Medical Association and its component county societies, have received much comment, and it is to be regretted that, because of lack of space in the May issue, several items concerning the College of Medicine of the University of Southern California and Doctor Widney could not be included. They are now given, however, as of probable appeal historically to all readers, but particularly so to the many graduates of the University of Southern California, who are in active practice in the State.

✓ ✓ ✓

Organization of Medical Department, University of Southern California, March 31, 1885

At a preliminary meeting of the profession, held at the office of Dr. J. P. Widney, March 31, 1885, to consider the advisability of organizing a medical department of the University of Southern California, the following physicians were present: Doctors J. P. Widney, A. F. Darling, H. H. Maynard, J. S. Baker, Joseph Kurtz, A. McFarland, F. T. Bicknell, G. W. Lasher, H. S. Orme, W. G. Cochran, W. Lindley, F. A. Seymour, and W. B. Percival. Doctor Widney, who had been elected dean of the faculty by the Board of Directors of the University, with power to organize the medical department, occupied the chair. On motion of Doctor Lindley, Doctor Percival was elected secretary of the meeting.

After calling the meeting to order and stating concisely the object of the meeting, Doctor Widney called on each one present for an expression of his individual opinion as to the feasibility of the undertaking. The opinions expressed were largely in favor of prompt and energetic action in regard to the matter, and one and all, without exception, recommended that the institution be placed at once on a footing equal to any, and superior to the majority of medical colleges in the United States.

Many expressed themselves as being unwilling to have any hand in the organization of any school other than the very best.

Preparatory to the permanent organization the Chair appointed an advisory committee, composed of Doctors Kurtz, Maynard, Lindley, Orme, Seymour, and McFarland, to confer with himself as to the best plan to be pursued in the accomplishment of the desired object, and to report at a subsequent meeting. Upon motion of Dr. F. A. Seymour, the secretary was added to the committee to act in the same capacity. After some discussion on the amplitude of the field and the outlook for such an institution the meeting adjourned to convene at the call of the dean.

W. B. Percival, *Secretary.*

* * *

Faculty Meeting, Wednesday Evening, April 22, 1885

Pursuant to a call of the dean, a second general meeting was held at his office, at which the following were present: Doctors J. P. Widney, Walter Lindley, Charles A. H. De Szigitz, A. F. Darling, H. H. Maynard, H. Nadeau, Joseph Kurtz, A. McFarland, J. H. Utley, G. W. Lasher, F. A. Seymour, W. L. Wills, and W. B. Percival.

The dean, who presided, read a partial report of the Advisory Committee, which after some discussion was referred back to the committee, and the same continued with power to act. Doctor Widney read also an incomplete list of the professorships with the names of those selected to hold them. Many plans were now offered and some suggestions made as to the mode of procuring a building, securing funds, and providing for the necessary working material. On motion, the Chair appointed a Committee on Site, Building and Funds, composed of the following: Doctors Kurtz, Darling, Maynard, Nadeau. Doctor Kurtz reported that the new Sisters' Hospital would accommodate one hundred and fifty beds, also that the control of its clinical advantages had been secured. Meeting then adjourned subject to the call of the dean.

W. B. Percival, *Secretary.*

* * *

Excerpt from Minutes of Faculty Meeting of September 22, 1896: Doctor Widney's Letter of Resignation

. . . Doctor Widney spoke of hearing that the faculty had agreed on a successor to the deanship. He hoped this was true, as he had desired to retire for some time. He then presented his resignation, which was accepted, to take effect when his successor was duly elected.

Letter of Resignation:

Los Angeles, California, September 22, 1896.

To the Faculty of the College of Medicine of the University of Southern California:

Gentlemen:—Some two years ago, I expressed to you a desire to retire from the active duties of the deanship of the College, whenever you could unite on a successor. As I understand, you have agreed upon a successor to the office. I, in obedience to the wish then expressed, herewith tender my resignation from the office, with which for eleven years you have honored me. In doing this, I wish to thank you for the uniform courtesy and kindness which I have always received from you, and to express my appreciation of the honor conferred upon me.

Pleasant as it has been for me, however, I have felt since my life has been called away from the active practice of the profession, that one more closely identified with current medical science would fill the position more satisfactorily, and that it would be better for the school. I shall not cease to retain my interest in the welfare of the school in taking this step, but shall always rejoice in its success and shall be glad, in any possible way, to aid in promoting its prosperity. I might say in explanation of my retirement from active work in the profession, which occupied so many years of my life, that the work which has come to me has been so clearly to me a call of God that I could not feel at liberty to draw back from it.

Very respectfully,

J. P. Widney.

Doctors Ellis, Lindley, and Wills were appointed to draft resolutions representing the feelings of the faculty.[†] . . .

It was ordered that Doctor Widney's letter of resignation be spread on the minutes. Doctor Lindley nominated Dr. H. D. Brainerd for dean. Doctor Kurtz seconded the motion. No other nomination was made. The Chair appointed Professor Conrey, Doctors Ellis and Brainerd to draft a constitution and by-laws to govern the faculty, those drawn up at the organization of the faculty having been mislaid.

W. L. Wade, *Secretary.*

CLINICAL NOTES AND CASE REPORTS

LYMPHOBLASTOMA[*]

A REPORT OF TWO CASES

By Louis F. X. Wilhelm, M.D.
and
William H. Goeckerman, M.D.
Los Angeles

In recent years there has been much discussion as to the etiology and genetic relationship of the group of diseases more recently classified, first by Mallory[1] and later by Keim,[2] as lymphoblastoma. Under this term they include Hodgkin's disease, lymphosarcoma, mycosis fungoides, and the leukemias. Sternberg,[3] Reed,[4] Longcope,[5] Ewing,[6] and others, believe that they are on an infectious basis. They cite the fact that they have seen leukemic processes develop from acute tonsillitis, diphtheria and pneumonia, and run a short, fatal course or develop into chronic leukemia.

L'Esperance,[7] Stewart and Doan, and others, stress the relationship of many cases of Hodgkin's disease and tuberculosis. They find evidence of avian tuberculosis often when human tuberculosis cannot be found. Warthin,[9] on the other hand, stresses the fact that, "pathologically, the lesions are neoplastic in type rather than granulomatous; they show fine infiltrations and metastases. In their cell types and architecture they follow definite patterns which cannot be explained on the basis of an inflammatory reaction."

Fraser[10] repeatedly has pointed out the genetic relationship existing between mycosis fungoides, lymphosarcoma, and lymphatic leukemia.

Symmers[11] thinks "it is simpler and more natural to correlate these lesions than it is to strain at the impracticable and artificial task of attempting to separate them into clinical and anatomic entities."

[†] For the faculty's resolutions on the resignation of Dr. J. P. Widney, see footnote in the May issue, page 397.

[*] Read before the Dermatology and Syphilology Section of the California Medical Association at the sixty-fourth annual session, Yosemite National Park, May 13-16, 1935.

In one hundred thousand diagnostic tissue examinations, covering a period of thirty-two years, Warthin[9] reports an incidence of 506 cases, approximately 0.5 per cent of all cases, diagnosed as lymphoblastoma. In 33 of the 506, or 6.5 per cent, of the total number of cases of lymphoblastoma, there was cutaneous involvement. The skin manifestations may be circumscribed or universal. According to Arndt[12] the circumscribed form consists mainly of small lymphocytes, whereas the universal form consists of large lymphocytes, which are more closely related to the lymphoblasts and have numerous mitoses. McCafferty and Machacek[13] recently reported two cases of cutaneous tumor formation which were of lymphoblastic origin. Goeckerman and Montgomery[14] reported two cases, one of localized and one of extensive ulceration, belonging to this group.

Interest in this unique syndrome was recently aroused by a patient in whom lymphoblastoma was suspected strongly but could not be substantiated until autopsy. Persistent and severe itching "to the very bone," combined with a progressive weakness, suggested the diagnosis. Within a week of this postmortem, a second patient with typical enlarged glands in the cervical, axillary and inguinal regions, combined with intense, deep pruritus, and a generalized exfoliating dermatitis, was observed.

One patient was observed over a period of five months. She complained of a tingling sensation in the hands and feet, and burning and itching deep in the bones. Her skin presented patches of erythematous dermatitis on the face, especially around the nose and chin and neck, and also involved the hands and forearms. It was suspected that she had a lymphoblastoma, but physical examination and laboratory tests, including a complete blood count, blood chemistry, urinalysis, examination of stools, basal metabolic rate, and x-ray examination of the chest, were normal. At autopsy the diagnosis of generalized lymphosarcomatosis was made.

A second patient was seen who complained of a generalized itching eruption. His skin presented an erythematous, slightly infiltrated, oozing, scaling dermatitis, involving the entire body. The epitrochlear, axillary and inguinal glands were enlarged. Complete blood counts, urinalysis, blood chemistry, stool examination, and x-ray examination of the chest were within normal limits. Microscopic examination of a gland revealed the histologic picture of Hodgkin's disease.†

COMMENT

The striking feature in both these cases was the character of itching. The first patient described her itching as coming from deep down in the bone. She stressed the fact that it did not feel like the ordinary surface itch. At each visit she invariably called attention to the fact that the itching seemed to originate deep down in the bone. The internists who saw this patient progressively grow weaker were more impressed with the possibility of tuberculosis, especially since this weakness was associated with cough and night sweats.

The second patient also complained of the severe and deep type of itching which failed to be relieved by the usual measures. The exfoliating dermatitis associated with the high white blood count and the relatively high lymphocyte count in the presence of the generalized lymphadenopathy prompted an immediate biopsy of skin and lymph node.

CONCLUSION

These two cases are reported to call attention to the deep character of the itching complained of in lymphoblastoma. The first patient's dramatic insistence that "the itching comes from deep in the bone" was the only symptom or sign that pointed to a diagnosis of lymphoblastoma.

727 West Seventh Street.

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The education of an individual is a complex process, its factors being hard to measure, now and then difficult even to detect. Some are intuitive, some come in the natural course of experience, some operate only when one submits to guidance and authority, some when one relies on his individual effort and independent will.—Leon J. Richardson.

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† Complete case reports included in author's reprints.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

CANCER OF THE RECTUM

William H. Kiger, M. D. (1930 Wilshire Boulevard, Los Angeles).—I have been requested to discuss this subject, with special reference to symptoms and prognosis. The latter depends so much on how early the former is recognized, and the proper treatment instituted, that it varies in the same ratio.

One of the earliest and most common symptoms is bleeding, but this may also occur late; so it is always a good rule to see if a patient complains of blood in the stool, and to find out where it is coming from. Changes in the bowel function such as constipation, diarrhea, frequency, loss of weight, discomfort, feeling of fullness, heaviness, or pain, should always be fully investigated. This should be done, first, by digital examination, and, if this is negative, then a complete proctoscopic should be made.

The majority of cancers of the rectum occur in the ampulla, or about the rectosigmoid junction, and at these points cause but little, if any, filling defects unless far advance, and a negative barium enema should not be regarded as final if a digital and proctoscopic examination have not been made. The early symptoms of cancer of the rectum are often so mild that they are not considered of any importance by either the patient or his doctor. It is my belief that the majority, if not all, of the cancers of the rectum and sigmoid are due to degeneration of simple adenomas, which are seen rather frequently in this location. They arise above the sphincter muscle and belong to the columnar cell growths, resembling the histologic structure of the mucous membranes from which they grow; they are adenocarcinomatous and closely resemble the benign adenoma and often appear pedunculated in the early stages. They can only be distinguished clinically when the broad infiltrated base shows its malignancy; but later ulceration occurs and the inflammatory change takes place. These cancers vary according to the histologic structure which predominates, but the scirrhus, or hard cancer, is the one most frequently found in the rectum. Ulceration comes on late in this variety, and consequently the constitutional symptoms of toxemia and cachexia are late in appearing. It often reaches an advanced stage before the patient is aware of its existence. The mild character of the symptoms during the early stage of the disease causes the patient to dismiss it from his mind as some simple ailment. Among the first symptoms that attracts the patient's attention is a sense of fullness within the rectum, and a feeling that the bowel has not been entirely emptied after evacuation, and later a soreness and tight feeling, accompanied by straining and bearing-down pain during evacuation. The nearer to the anus the disease is located, the more marked are these symptoms. If the anus itself happens to be involved, they will have severe pains and often partial incontinence quite early in the course of the disease. Another early symptom is a slight morning diarrhea, due to the irritation of the retained feces above the obstruction. Later all these symptoms become aggravated, and they have a discharge of bloody mucus and pus, both from the sloughing cancer, and from the ulceration above, which is due to the pressure of and the toxins absorbed from the retained and hardened feces that are lodged in the dilated portion above the obstruction. The discharge has a peculiar odor, and once recognized is seldom forgotten.

The blood picture is of little importance until the later stages, when one often gets a secondary anemia. Distention of abdomen does not occur unless the growth has advanced far enough to cause a partial or complete obstruction. Unless the growth is large and high, you are not able to palpate.

Prognosis.—Age is a decided factor in the prognosis. Under the age of thirty-five it is usually unfavorable because of the high malignancy of the growth. But there may be exceptions to this rule. The writer had one case in 1926, at which time he removed a malignant ulcer, which was a degenerated adenoma, in a girl of twenty-two, and there has been no recurrence to date. In patients of seventy, or older, the growth of the cancer is not nearly as rapid as in a younger person, neither are they good subjects for radical surgery, so the prognosis in this class of cases is rather unfavorable. Location of growth has to do with its early symptoms and early recognition and treatment, "as time is the essence of the contract," is a very important factor in the prognosis. The degree of malignancy is graded from one to four, and the higher grades are the ones most prone to metastasize and recur; hence, the outcome is less favorable than in the lower grades. The mental attitude of the patient is a deciding factor in the final outcome of your surgery. The low and depressed patient has a poorer prognosis than the cheerful one.

* * *

Dudley Smith, M. D. (450 Sutter Street, San Francisco). — Early recognition and early operation are the essential factors in cure. On the whole, these cases are discovered relatively late. Nearly a year elapses, on the average, after symptoms have begun before these cases reach the surgeon, although diagnosis of cancer of the rectum and rectosigmoid is easily made in 100 per cent of the cases by digital, anoscopic, and proctoscopic examination.

The frequency of cancer in this region lays a great responsibility upon the physician to investigate carefully all cases presenting any symptoms referable to the intestine or rectum.

A physician cannot be held responsible for late diagnosis in patients who have failed to consult him until late in the course of the disease; but it is a sad indictment when months are allowed to pass after the patient has consulted the physician before a proper diagnosis is made.

That the physician may be on his guard, consideration should be given as to what are the early symptoms of cancer of the large bowel. Any change in bowel habit or sensation should cause the physician to suspect trouble. The rectum is a silent area, and a growth usually gives no symptoms for the first six months; but even during this time there may be slight irritation or change in the character or frequency of the bowel movements. This is especially true in the papilliferous type, for this type grows rapidly and causes the secretion of considerable mucus. During this early period there may be a little discomfort in the rectum or a little more frequent urge to defecation. These minor symptoms may be ignored by the patient, but if any of them are called to the attention of the physician, an adequate examination should be made. When the lesion is at the rectosigmoid junction, rapid increase in constipation is a not infrequent symptom, because the lumen of the gut at this point is small and the growth constricts early. Distention by gas and colicky pains are frequent complaints. If the abdominal wall is thin, peristaltic waves will probably be seen. When blood appears in the bowel movement, it should be an imperative command to the physician to immediately find where it comes from.

If hemorrhoids which are bleeding or might bleed have been found, the physician cannot be absolved from blame if he does not investigate higher up and make sure that there is no other lesion from which the blood is coming. *Physicians, students, nurses, and the public, should be taught that blood from the rectum means cancer until cancer is ruled out.*

Every patient consulting a physician for any type of rectal trouble should have the benefit of routine proctoscopic examination. If this were done, many cancers would be discovered early; many unsuspected polyps would be seen and a considerable number of these would be found to be changing into early malignancy.

There are several reasons why these cancers are not discovered earlier. Some of these reasons are:

1. Patients put off coming to the doctor for any rectal symptoms as long as they can because they have been told by others that an examination of the rectum is a very painful procedure. This impression upon the part of the laity arises from the unnecessary pain and discomfort so frequently suffered by the patient in the examination and treatment of rectal conditions.

2. The general impression that blood from the rectum means hemorrhoids.

3. Very frequently patients resort to rectal suppositories, which are prescribed by a friend, by the druggist, or by a physician who has made no examination.

Personal communications from fifty-seven Fellows of the American Proctologic Society support the writer's contention that rectal suppositories, so glowingly recommended to the medical profession by their manufacturers, are of no value in the treatment of anal or rectal disease. The names of some well-advertised brands should be changed to painusols, paranoids, sillycones, foldurols, and fannycain.

4. Inadequate examination of the patient. In over 90 per cent of rectal cancer a simple digital examination will reveal the growth. This fact adds force to the dictum of a well-known professor of medicine, who said to his students: "Put your finger in the rectum or you may later find you have put your foot in it." Adequate examination includes the following, and should be done in the order named: inspection, digital, anoscopic, sigmoidoscopic up to ten inches, and barium enema if the lesion is not found within the range of the sigmoidoscope.

5. Barium enema and x-ray examination. Reliance upon a negative x-ray report is a very frequent cause of delay in diagnosis. Growths below the rectosigmoid junction are rarely discovered by x-ray, and never until far advanced and constriction has developed.

6. Stool examination. Many cases are treated for months for amebiasis or dysentery when cancer has not been ruled out by adequate examination.

Microscopic examination should be done in all cases to corroborate diagnosis and especially for the purpose of grading the malignancy of the growth, which has an important bearing upon the treatment to be instituted in the individual case. A small piece, about one-eighth inch in width, should be nipped out with a biopsy forceps and the wound immediately cauterized with the electrocautery. Done in this way, the taking of a specimen does not increase the danger of metastasis and effectually prevents error in diagnosis. If a negative report is received and the lesion appears malignant to the examiner, a second specimen should be taken, which will, in all probability, confirm the diagnosis.

* * *

Montague Woolf, M.D. (384 Post Street, San Francisco).—Unless the patient is unwilling to have an operation or constitutional disabilities exist to prevent one, the treatment of cancer of the rectum is always operative. This dictum applies to any stage of the disease unless the growth is physically irremovable. Cancer of the anal canal, which is an epithelioma and thus differs from the adenocarcinoma of the rectum and colon proper, should, likewise be removed by excision, cauterization, or curettage: but, in addition, radium is of greatest accessory value in treating this type of cancer.

Local Excision With or Without Radium.—It has always been controversial as to whether a cancer of the rectum as distinct from cancer of the anal canal may be locally removed without risking a recurrence. It is obvious that this may be done for two reasons: First, a growth may commence in a small adenoma, sessile or pedicled, and a change may not yet have reached its base. Second, it is well known that the lymphatics in the wall of the rectum are few and small, which allows a considerable time to elapse before the adjacent glands are contaminated by malignant cells. One can, therefore, report many a cure by local removal. A polypoid adenoma which has degenerated into a malignancy with the base still soft may be removed by a snare or knife and the site of origin well cauterized by heat. Should a growth fortunately be within an inch in diameter and loosely arising from the wall of the rectum, it may be removed by excising the whole wall of the rectum with a margin at least as wide as the growth. I believe it is fair to offer this patient such an alternative to the highly mutilating total extirpation of the rectum. In addition, whenever a small growth is locally excised, radium or radium seeds should be applied around the excised area. A small area of adenocarcinoma can be influenced profoundly by radium, and in case, for reasons mentioned above, an early growth may not be removed by resection of the rectum, even radium alone may be effective in curing the disease. But it must be applied so that there is an effective cross-fire of its rays, which means that it must be inserted under direct vision and usually by some surgical exposure of the area to be irradiated. Radium is of no value in surgically inoperable cancer.

Epithelioma of the Anus.—Epithelioma of the anal canal is much more sensitive to the effect of radium than adenocarcinoma. It is likely that radium procures all the effect of removal of the intestine. The use of radium is of the greatest use when the size of the growth is known exactly and when carefully planned insertion of the radium to cover all of it in every direction has been definitely mapped out. The foregoing may appear to differ from the views of some operators, but no less an authority than Lockhart-Mummery[1] substantiates the validity of the proceedings.

Large Operable Growths of the Rectum.—Larger operable growths of the rectum need radical excision of the intestine. The rectum is five inches in length and the anal canal one inch and a half. The growths will occur anywhere in these five inches.

There are two operations which in my experience are of such a desirable and fundamental nature as to be worth while standardizing. It must be remembered that in its early history a difficult operation will be performed by the expert, and the survival of such an operation will depend on the possibility of its being adopted by surgeons in general. This prospect depends on a widespread application and a simplicity of conception although the operation may not be easy. The two operations which fit such offices are the abdominoperineal operation in one stage and the perineal resection of the rectum following a preliminary colostomy.

Abdominoperineal Operation in One Stage.—This operation may be termed the ideal procedure for removal of a growth which cannot be reached with safe limits by the perineal.

Perineal Resection.—This operation is, to me, the one of choice in most operations for cancer of the rectum. As much as sixteen inches of bowel may be removed at times from below. To remove eight or ten inches by this method should always be possible; certainly, if one and a half inches of the sacrum be removed for greater access to the tumor.

Inoperable Growths of the Rectum.—A cancer of the rectum may be inoperable on account of dangers attendant on old age, systemic disease, local extension or metastatic invasion. Radium or x-rays, the latter even of high voltage, in no way influence for good the duration or ultimate result of widespread growths. Still, some alleviation can be obtained by a colostomy, which prevents the fecal stream contaminating the area and so reduces to a minimum the occurrence of obstruction, inflammation, including perforation and formation, of an intra-abdominal or pelvic abscess. Pain, too, is often mitigated by an artificial iliac anus, and the life of the patient is often prolonged by it. Morphin should not be withheld when the pain becomes severe, but it is not unwise occasionally, in conjunction with this drug, to use pitressin in order to maintain the tone of the bowel.

Occasionally, in spite of small metastases being found in the liver, the growth should be resected in order to protect the patient from the discharge of blood and mucus, hemorrhage, and the sometimes excruciating pain caused by the infiltration of pelvic nerves. This depends on the size of the growth and applies mainly to perineal removal.

Where education has been entirely neglected or improperly managed, we see the worst passions ruling with uncontrolled and incessant sway. Good sense degenerates into craft, and anger rankles into malignity. Restraint, which is thought most salutary, comes too late, and the most judicious admonitions are urged in vain.—S. Parr.

To make the most of dull hours; to make the best of dull people; to like a poor jest better than none; to wear the threadbare coat like a gentleman; to be outvoted with a smile; to hitch your wagon to the old horse if no star is handy—that is wholesome philosophy.—Bliss Perry.

Leisure, like wealth, comes to him who has skill in planning; it is seldom put to good uses if it is ill-got. It will do the possessor most good who has earned it. To have it and not use it makes a miser. To misuse it makes a spendthrift. To use it well is the mark of a wise man.—Leon J. Richardson.

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[1] Lockhart-Mummery: Diseases of the Rectum and Colon, L. Wood & Co., Baltimore, 1934.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section (Adv. pages 2, 4 and 6).

CALIFORNIA MEDICAL ASSOCIATION

EDWARD M. PALLETTE..........President
HOWARD MORROW..........President-Elect
FREDERICK C. WARNSHUIS..........
Secretary-Treasurer and Associate Editor for California

STATE AND COUNTY SOCIETY ACTIVITIES

ANNUAL SESSION

This issue went to press before the members convened for our 1936 annual session. The minutes of the Coronado session will be published in the July issue. If at all possible, before the last forms are assembled for this issue a "flash" comment will appear in this issue. Look for it.

* * *

YOUR COUNTY SOCIETY

Next to your diploma and license to practice, your most valuable possession is your certificate of membership in your county and state medical organization. It attests to the public that you were able to meet the requirements for membership and that your qualifications have been judged and approved by your peers.

The public in making a selection or in engaging the services of a physician or surgeon is becoming more and more accustomed to make inquiry as to whether or not the physician under consideration is a member of the county medical society. Every month witnesses an increase in lay inquiries as to whether Dr. John Doe is a member of our Association. Just recently an insurance company stipulates in one of its policies that benefits for accident or sickness will not be paid unless attended by a physician who is a member of his county medical society. For years insurance companies have refused to appoint examiners who are without membership affiliation. Industry observes the same safeguard.

The public is learning to look with suspicion upon a medical man who has no medical society affiliation. The public concludes there must be something wrong about a physician or surgeon who is a non-member, and as a result their confidence is placed in the man who holds membership in his county medical society.

We repeat—your membership is a valuable possession. This fact should cause every member to realize that he owes much to his county and state organizations. He can meet that obligation by giving some of his time each week to the upbuilding of his county medical society. This interest is invited.

Those who love their profession have steadily and steadfastly worked for it. The greatness of our profession, all of its achievements have been accomplished through personal effort subscribed to and reflected by our medical organization. Associated effort will promote our future progress.

* * *

AMERICAN MEDICAL ASSOCIATION MEETING

Nigh seven thousand Fellows journeyed to Kansas City to attend the American Medical Association annual session. The "compromising" sons of Missouri and Kansas had spent many weeks in perfecting arrangements and were delighted by the large number who became their guests.

The usual enthusiasm and high spirits were depressed by the absence and serious illness of Dr. Tate Mason of Seattle, Washington. Regret was turned to bitterness for the moment by the ill-inspired and base movement to obtain action that would have prevented Doctor Mason being inducted into office. The Judicial Council's unwarranted attitude and partial interpretation of the Constitution and By-Laws was questioned by a number of delegates, and when the chairman of the Judicial Council conceded that the House of Delegates could form regulations by which a president-elect could be installed as president, Dr. E. M. Pallette of the California delegation moved that Doctor Mason be installed as president in absentia. This motion was carried and Doctor Mason was installed as president at the opening general meeting. It must have been very gratifying to hear this expression of confidence, esteem, and tribute over the radio as he lay upon his death-bed in Seattle.

Much of the business was routine. No action was taken on the question of contraception. Further study was directed. Invasion of the field of medical practice by hospitals was condemned. Medical services cannot be divided into professional and technical groups. The services of technicians were declared to be medical services and should remain under the control and supervision of medical men and not of hospitals or laymen. The Judicial Council was empowered to remove from Fellowship anyone guilty of unprofessional conduct and against whom his county or state association failed to take action. A number of lesser important actions were recorded.

Dr. J. H. J. Upham of Ohio was elected president-elect, Dr. Gordon Heyd of New York, vice-president. Atlantic City was selected as the place for holding the 1937 meeting.

California was represented by Doctors E. M. Pallette, C. A. Dukes, Lyell C. Kinney, J. H. Shephard, E. J. Best, and A. J. Scott. California had the following reference committee appointments: C. A. Dukes, Medical Education and Hospitals; E. J. Best, Rules and Order; A. J. Scott, Miscellaneous Business.

* * *

PASSING OBSERVATIONS

From here and there in our travels the following observations have been made:

Too many physicians are unfamiliar with or have chosen to ignore the objectives and purposes of our Association. They often forget that we have a state-wide organization, that it functions twenty-four hours a day. The night telephone is Walnut 8671.

Excellent as is individual effort, success in great enterprises imply and is the result of a combination and unity of effort.

California's county secretaries are more alert, accept and discharge their official duties more efficiently than any other group of county secretaries that we have contacted.

The physician, the county society, and the State Association—each is dependent upon the other. Greater ends will be attained when every member personally undertakes to promote the objectives to which our Association is committed.

Many members do not take the trouble to know the Association's policies and purposes. They are imparted from month to month in this publication, but are passed by and not read. It is necessary to learn and know all the facts ere judgment is formed.

Some members fail to realize that they have obligations to their colleagues and their county society equally as important as are their personal obligations. The individual nature of their work tends to make them individualists. That tendency should be overcome.

Collective thinking must be cultivated and evidenced. This is a challenge.

Every eligible physician should be invited to become a member.

There are one thousand physicians in the state who should be invited to join.

The office of the county secretary is the most important office in our plan of organization. He is the key man. Let the county secretary fail, then his society fails and the state body becomes proportionately weaker. An efficient secretary should be kept in office as long as it is possible to do so.

Our responsibilities must not be limited to ourselves. We have a very definite obligation to play a prominent rôle in community life. Public opinion must be well moulded.

When after due deliberation, a definite policy is decided upon and declared to be representative it ill becomes an individual or a minority group to publicize their individual views before laymen. "When doctors disagree the lay public will disregard our opinions and recommendations. Differ and discuss the pros and cons during deliberation, but when a majority decision is determined upon it ill behooves the individual to represent to the public that we are a house divided.

Opportunities in every county are presented to the local society. Embrace them for they afford many chances to bring your society before the public as well as to provide assignments for your members to work for their local and state organizations.

Hypercritical and non-coöperating attitudes are found in the following types of physicians: (*a*) disgruntled hypersensitives; (*b*) selfish purposes; (*c*) questionable practices; (*d*) ignorance of motives and purposes; (*e*) confirmed individualists; (*f*) never satisfied; (*g*) nonconformists; (*h*) jealous; (*i*) knockers.

Councilors only fail when the societies of their districts fail. Our Council is a most unselfish group.

Other observations will be published from time to time.

* * *

RE ENDOWMENT TRUST FUND

April 9, 1936.

Dear Doctor Warnshuis:

I have received and examined your letter of March 27 with enclosure concerning a proposed endowment trust fund to be created with a trust company as trustee for the benefit of the California Medical Association.

As I understand the editorial at page 145 of the March issue of California and Western Medicine, its object is to suggest to members of the Association that legacies, bequests, and devises be provided in their wills for the benefit of the California Medical Association, and that for this purpose it is suggested to members that the legacies, bequests, or devises be in the form of a testamentary trust with the Trustees Of The California Medical Association as trustee for the benefit of the California Medical Association. If I am correct in my understanding, then it follows that any funds acquired in this manner would be held by the Trustees Of The California Medical Association as trustee and would be invested and reinvested by that corporation in accordance with the directions of the will and the law. It would be the legal duty of the Trustees Of The California Medical Association to maintain complete control of the funds at all times, as under the law a trustee of property has no authority to transfer trust funds to another except for an adequate consideration which will inure to the benefit of the trust fund.

I am enclosing a rough draft of a form covering money only, which may be used as the basis for a trust instrument in cases of an *inter vivos* gift. If this form, or one similar to it, is eventually approved and brought to the attention of members of the Association, an explanatory note should accompany the form explaining alterations in wording that are necessary to accomplish particular desires.

I have not attempted to draft a form for gifts of real property or stocks and bonds because each particular gift will involve distinct problems and, therefore, will require different types of instruments.

Very truly yours,

Hartley F. Peart.

FORM OF GIFT FOR THE BENEFIT OF CALIFORNIA MEDICAL ASSOCIATION AND FOR THE PURPOSE OF FURTHERING ITS OBJECTS

I hereby give and deliver unto the Trustees Of The California Medical Association, a California corporation, the sum of ——— (———) Dollars. It is my desire that said sum be held by it as a charitable trust fund to be known as (here insert name desired) Fund, the principal whereof shall from time to time be invested by said corporation to the best advantage compatible with safety and the income whereof shall be applied by it to promote the science and art of medicine, the protection of public health, and the betterment of the medical profession.

* * *

WARNING

Through no fault of my own and beyond my control, a half-brother, one Gerrit John Warnshuis, M. D., recently located in Detroit, Michigan, has addressed a letter to many members of the medical profession in which he expresses his opinion as to a certain alleged cancer treatment. I am not certain that the surname is being used for what it may be worth as a result of my many years' association with organized medicine.

I desire to so inform the medical profession in order that it may not be misled by the surname that is signed to that or any other similar communication.

Frederick Cook Warnshuis, M.D.,
Secretary, California Medical Association,
San Francisco, California.

* * *

FUTURE GOALS TO CONQUER

A bright page in history has been written by medicine's progress during the past twenty-five years. Human lives have been conserved and life expectancy has been increased. Typhoid, typhus fevers, have been conquered. Infectious and contagious diseases in their morbidity and mortality have been reduced to low-bracket percentages. Surgery has accomplished much. One need but turn to medical literature for the evidence that reveals the tremendous strides scientific medicine has made during the past quarter of a century.

There are two outstanding conditions that challenge medical men—syphilis and psychopathosis. The morbidity and mortality of syphilis constitutes an incident that casts a sore reflection on society by reason of its prudery. It is only within the past year that certain newspapers commenced to print the word syphilis. Recently Doctor Parran, now Surgeon-General of the United States Public Health Service, was "tuned out" when in a radio broadcast address he mentioned the term "syphilis." "Social disease" is the designation used in the public press when any reference was made to this disease. Efforts to enlighten the public have been seriously obstructed by that narrow-minded public and press attitude. Syphilis will not be controlled until the public is in possession of facts related to its prevalence, transmittal and constitutional debilitating effects. Surmounting the social prudery barrier will enable health officials and physicians to bring about a marked reduction of syphilis as an incident in human incapacity, dependency, and mortality.

Socio-economic and political situations created by unemployment and government relief have exerted a pronounced influence upon the mental state of large numbers of people. A problem created by these conditions confronts psychiatrists. It devolves upon them to advance corrective measures.

These two major problems constitute goals that scientific medicine must cross. It is a challenge that should be accepted.

* * *

PRINCIPLES OF ETHICS

The following is the third article of our accepted principles of professional conduct.

Article III. Duties of Physician in Consultations

CONSULTATIONS SHOULD BE ENCOURAGED

Section 1. In serious illness, especially in doubtful or difficult conditions, the physician should request consultations.

CONSULTATION FOR PATIENT'S BENEFIT

Sec. 2. In every consultation, the benefit to be derived by the patient is of first importance. All the physicians interested in the case should be frank and candid with the patient and his family. There never is occasion for insincerity, rivalry, or envy, and these should never be permitted between consultants.

PUNCTUALITY

Sec. 3. It is the duty of a physician, particularly in the instance of a consultation, to be punctual in attendance. When, however, the consultant or the physician in charge is unavoidably delayed, the one who first arrives should wait for the other for a reasonable time, after which the consultation should be considered postponed. When the consultant has come from a distance, or when for any reason it will be difficult to meet the physician in charge at another time, or if the case is urgent, or if it be the desire of the patient, he may examine the patient and mail his written opinion, or see that it is delivered under seal, to the physician in charge. Under these conditions, the consultant's conduct must be especially tactful; he must remember that he is framing an opinion without the aid of the physician who has observed the course of the disease.

PATIENT REFERRED TO SPECIALIST

Sec. 4. When a patient is sent to one specially skilled in the care of the condition from which he is thought to be suffering, and for any reason it is impracticable for the physician in charge of the case to accompany the patient, the physician in charge should send to the consultant by mail, or in the care of the patient under seal, a history of the case, together with the physician's opinion and an outline of the treatment, or so much of this as may possibly be of service to the consultant; and as soon as possible after the case has been seen and studied, the consultant should address the physician in charge and advise him of the results of the consultant's investigation of the case. Both these opinions are confidential and must be so regarded by the consultant and by the physician in charge.

DISCUSSIONS IN CONSULTATION

Sec. 5. After the physicians called in consultation have completed their investigations of the case, they should meet by themselves to discuss conditions and determine the course to be followed in the treatment of the patient. No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending or by their common consent; and no opinions or prognostications should be delivered as a result of the deliberations of the consultants which have not been concurred in by the consultants at their conference.

ATTENDING PHYSICIAN RESPONSIBLE

Sec. 6. The physician in attendance is in charge of the case and is responsible for the treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the mode of treatment outlined and agreed on at a consultation whenever, in his opinion, such a change is warranted. However, at the next consultation, he should state his reasons for departing from the course decided on at the previous conference. When an emergency occurs during the absence of the attending physician, a consultant may provide for the emergency and the subsequent care of the patient until the arrival of the physician in charge, but should do no more than this without the consent of the physician in charge.

CONFLICT OF OPINION

Sec. 7. Should the attending physician and the consultant find it impossible to agree in their view of a case another consultant should be called to the conference or the first consultant should withdraw. However, since the consultant was employed by the patient in order that his opinion might be obtained, he should be permitted to state the result of his study of the case to the patient, or his next friend in the presence of the physician in charge.

CONSULTANT AND ATTENDANT

Sec. 8. When a physician has attended a case as a consultant, he should not become the attendant of the patient during that illness except with the consent of the physician who was in charge at the time of the consultation.

* * *

SUDDEN DEATH OF DR. CAMPBELL P. HOWARD

As the June issue of California and Western Medicine was about to go to press, word was received of the death in Los Angeles, of Dr. Campbell P. Howard of Montreal, Canada.

Doctor Howard was a guest speaker at the Coronado meeting, conducting the Clinico-Pathological Conference.

RETRACTION AND APOLOGY

Time
Incorporated
New York Chicago

Executive Offices
135 East 42nd Street
New York

May 2, 1936.

Dear Doctor Warnshuis:

Mr. Hulburd has forwarded your letter of the 27th regarding *Time's* recent story.

Time is sincerely distressed that it erred in the facts presented in this story. These facts were obtained from sources believed to be reliable and were presented by *Time* without any malice or thought of injuring you or your reputation.

Time gladly accepts the statements enumerated in your letter as the true facts and apologizes for having published any statement at variance with these facts.

Time would have been pleased to publish a letter from you in its editorial columns, but I understand from Mr. Hulburd that you do not wish publication of any letter.

Very truly yours,
(Signed) C. D. Jackson
Assistant to the President.

Dr. Frederick C. Warnshuis
California Medical Association
450 Sutter
San Francisco, California.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS[†]

"Medical Greed"

Some newspapers, probably responsive to the certain proponents, in commenting upon the court decision restraining supervisors from admitting patients who are not indigents to county hospitals, have assumed that the court action was inspired by medical greed. Others have said the action was inspired by the medical profession, who are the owners of the private hospitals. These and similar statements are being made by editors and individuals who are now active in circulating petitions to place on the November ballot an initiative to amend the state constitution so as to open up county hospitals.

It is a matter of grave concern when proponents for sociologic changes resort to unsubstantial statements and reflect such gross ignorance of true facts and conditions. If these statements are permitted to go unchallenged, then an informed public will be misled and through misinformation may cast their vote in favor of open county hospitals. It devolves upon every member to expose these misstatements and to acquaint voters as to the real facts. To that end members are urged to embrace every opportunity to present the true facts to their patients and friends. The following points may be helpful in removing misconceptions and disabusing misinformed minds.

1. Private hospitals are not owned by doctors and the doctors have no financial interests in hospitals. There are only a few hospitals owned by doctors, and these are sanitariums or a few hospitals of small bed capacity in isolated areas.

2. Costs per day for caring for patients in county hospitals are inaccurate. In arriving at per diem costs, county hospital day rates do not include capital investment, bonds, interest, depreciation, repairs, labor, certain supplies and utilities. County hospital per diem costs are not less and often exceed private hospital per diem costs. The difference will be reflected in increased taxes.

3. County hospital care and services do not equal those of private hospitals.

4. Doctors on the attending staff of county hospitals are not remunerated for their professional services.

[†] The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. Charles A. Dukes of Oakland is the chairman, and Dr. F. C. Warnshuis is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. F. C. Warnshuis, Room 2004, Four Fifty Sutter Street, San Francisco.

5. If county hospitals are opened to all patients, many private hospitals will be forced to close. There will be a local lack of hospital facilities. County hospitals will be compelled to build additions. Hospital experts and architects estimate that building costs average $3,500 per bed. The cost of additions will be borne by taxpayers, and that means increased taxes payable by taxpayers.

6. A number of years ago Henry Ford built a hospital in Detroit, imbued with the idea that hospital care could be provided at a cost of $5 per day or less. Ford had experts, efficiency men, purchasing advantages, etc. It is reported that the Ford Hospital, in spite of his efficiency and men resources, has encountered an operation loss of a million and more dollars per year, balanced by Ford's money. Taxpayers would be called upon to pay increased taxes to meet county hospital deficits.

7. If individuals, their relatives or friends, would refrain from engaging private rooms and de luxe accommodations beyond their financial resources, they can obtain adequate and ample hospital care in private hospitals at costs that will not exceed the county hospital's quoted costs, in their immediate vicinity. Ward and semi-private room costs in private hospitals do not exceed county hospital costs for this service.

8. No county hospital or government-owned hospital has ever equaled the service of the private hospital.

9. Open county hospitals means increased politically appointed employees, increased payrolls, which in the end means but one thing—increased taxes.

10. Closing of private hospitals means decreased tax returns. Taxes are paid by many private hospitals. Lost tax receipts means increased taxes for the taxpayers.

These are but a few general statements. They can be enlarged and amplified by calm reflection. The quest has been to inspire members to become concerned, awakened to the need and necessity of undertaking to refute the unwarranted declarations of sponsors for open county hospitals.

* * *

Hospitals and Medical Care

It was very heartening to hear the following statements during the Western Hospital Association meeting in San Francisco in April, from Doctor MacEachern of the College of Surgeons and Doctor Buerki, president of the American Hospital Association:

"Hospitals cannot engage in the practice of medicine."

"Hospitals cannot profit from medical services."

"Profits cannot be derived from laboratory services (x-ray and pathologic)."

"I'd prefer to have my anesthetic administered by a registered physician instead of a nurse."

"I would prefer to have my x-ray examination supervised by an expert roentgenologist than by a technician."

"Profits from laboratory services must be returned to patients."

"Hospitals will coöperate with their medical staffs."

Thinking, competent hospital administrators and superintendents evidently recognize that hospital income cannot be increased by invasion into the field of medical practice and care. Exploitation of medicine cannot be engaged in to turn hospital deficits into balanced or profit-producing income.

* * *

Alberta—Townsend?

Press items impart that the province of Alberta has defaulted on its bonds. This is the province where the Governor proposed to give $25 a month to each of its 400,000 adult residents. How Alberta ever hoped to raise the necessary $120,000,000 is a mystery to economists. Taxation far in excess of the $25 per month would have been necessary, and the bonus income of the taxpayer would have been wiped out by taxes. This social experiment presents an example that may be heeded by our federal and state governments.

Press items also reveal a congressional committee's exposé of the financial transactions of the Townsendites. The pity is that the total income of nearly a million dollars was contributed in nickles, dimes, and dollars by the hopeful and deluded supporters seeking a dole of $200 per month after attaining the age of sixty.

From these two incidents the lesson should be learned that social programs cannot survive if they are without sound economic merit. It would seem that no social experiment should be undertaken until it has been approved by a corps of well-versed economists. Legislation is frequently enacted with no consideration of the cost or the source of required funds. Theorists lack acumen of late to fit their theories with successful application. They have been tearing down in place of strengthening our social institutions. We require learned, sane leaders to point the safe way out of our present disorganized state of social conditions. More men of the type of those men of yesteryears who held a steady helm on affairs of business and state.

* * *

Let Well Enough Alone at the County Hospital *

In a report made in 1932, the Sacramento County Grand Jury declared, with reference to the system under which the Sacramento County Hospital was operating at that time:

> Beyond a doubt, thousands of patients are being treated yearly at the expense of the taxpayers and through the generosity of the local medical profession, who should not be objects of charity.
>
> This is resulting annually in thousands of dollars' cost to the taxpayers, which would be easily eliminated without depriving a single person of the medical care for which they are unable to pay.

The report mentioned a long list of abuses which has grown up because of the political manipulation of the hospital services.

* * *

When the county charter was adopted, an effort was made to end these abuses. In the first place, to guard as far as possible against the hospital being utilized as a place of treatment for patients who happened to have some pull at the county courthouse—as was the common thing at that time—general supervision and direction thereof was placed in the hands of a county health and welfare board, two of whose members are practicing physicians and the other a practicing dentist.

The charter further provides:

> The Sacramento County Hospital shall be so called and shall be maintained for Sacramento County indigents only.

It was these provisions in the charter that made one of the strongest appeals to the citizenry and helped roll up the big majority in its favor.

* * *

The charter went into effect on July 1, 1933.

So far as the public has been able to discover, the new set-up at the county hospital has worked satisfactorily.

Now, however, a proposal has been made to the board of supervisors that the charter be amended to admit pay patients to the hospital.

John Keema, chairman of the board of supervisors, declared:

> I am against the charter provision restricting hospital service to those taking the pauper's oath.

* * *

As a matter of fact, there is no such restriction in the county charter. For the word "indigent" as used in the charter is not synonymous with "pauper," as defined by the courts.

Quoting from the *Pacific Reporter,* second series, page 511:

> The word "indigent," when used in connection with admissions to county hospitals, includes any inhabitant of the county who possesses the required qualifications of residence and who has insufficient means to pay for his maintenance in a private hospital after providing for those who legally claim his support.

In other words, under this court ruling, any Sacramento County resident who can show that all his income is necessary for the support of his dependents is entitled to receive medical assistance at the county hospital.

* * *

This will strike the average citizen as sufficient to cover every worthy or really needy case for medical attention.

And it powerfully argues against tampering with the present provisions of the charter.

Let well enough alone.

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* Reprint of editorial in the Sacramento *Bee.*

Qualifying Certificate

Chairman George H. Kress of the Special Committee appointed by the Council to draft and secure the enactment of a qualifying certificate law by initiative, is completing the preliminary draft of such a law. In due time a copy will be sent to every county society for study and comment. This statement is made for the information of members who have sent in inquiries as to when such a law was to be submitted. As has been stated in the editorial section of CALIFORNIA AND WESTERN MEDICINE, it will not be possible to place the initiative upon the ballot before the 1938 election.*

* * *

Hospital Insurance

(Summarization of remarks made by Dr. T. Henshaw Kelly, chairman of the Council of the California Medical Association, to the Assembly Interim Committee on "Health Insurance" at their public hearing in San Francisco, April 23 to 26.)

In 1934 the California Medical Association at its annual session in Riverside created a committee of five members and instructed that committee to survey health conditions, to prepare a plan for health insurance in California and a bill for health insurance that might be ready for submission to the 1935 Legislature. This Committee of Five began its work by creating an advisory council of economists from the University of California and a survey staff headed by Dr. Paul Dodd of the University of California at Los Angeles. This staff was instructed to make a survey of health conditions in California and to report to the Committee of Five, accompanying the report of the survey with any recommendations that the survey staff and advisory council might possibly make. The Council of the California Medical Association, under instructions from the House of Delegates, appropriated the moneys necessary for this survey, which ultimately totaled about $35,000.

After the survey was begun, it was found that if sponsored by some official agency of the State of California, it could obtain money from the SERA to pay for field workers for a survey more extensive than that originally planned by the committee. The good offices of the State Board of Health were sought and it requested the aid of the SERA in making a survey of health conditions in California and designated the California Medical Association and its Committee of Five as the agency through which this survey was to be carried out. Thereupon, the SERA furnished field workers and expended some $55,000 for their salaries, the California Medical Association paying for all of the supervisorial work necessary in this field work.

In setting up the survey staff, the Committee of Five did not ask that any member or members of the California Medical Association be placed on the staff, as the committee was interested in seeing a survey made by a disinterested group which would not be charged with any bias favorable to the medical profession itself. However, it did suppose that some medical consultation and study would be made in planning the survey and in evaluating it before a report was rendered. To the best of my knowledge, no such evaluation has been made and the tentative draft of the report furnished to the Committee of Five seems to be the work of a small group of economists with no medical knowledge, viewpoint or experience whatsoever. Frankly, to me and to other members of the California Medical Association who have had the opportunity to see this report, it is not clearly written, many of the tables to us are incomprehensible, and a number of the deductions seem not warranted.

There is no foundation to the rumor going around that the California Medical Association intends to suppress this survey report. There is a resolution of the House of Delegates to the effect that each delegate must receive a copy of it. However, the Committee of Five and the Council of the California Medical Association feel that the Association is entitled to a report in which the statistical work is as near beyond reproach as is possible, which has received the criticism of competent medical knowledge and experience and which is set forth in the best possible form. The Association is perfectly willing to permit the survey staff, with unbiased assistance, to attain these objects in the final draft of the report which will not be suppressed.

In 1935 the Senate Interim Committee asked the assistance of the California Medical Association in preparing a proposed act providing compulsory health insurance in California. On March 3, at a special meeting held in Los Angeles, the House of Delegates of the California Medical Association voted to create a committee of six and instructed it to work to the end that the legislature would enact a compulsory health insurance act containing certain standards of organization and control set forth in the resolution creating this Committee of Six.

This Committee of Six, working in coöperation with the Senate Interim Committee, wrote a bill which the Interim Committee included in its report to the Senate and introduced by amending Senate Bill 454.

What happened to this bill and its companion, Assembly Bill 1097, is known to you all.

As a result of this, a great many members of the California Medical Association, among whom are some who believe that ultimate compulsory health insurance should be enacted, did feel that much more knowledge of the problems and community of interest among the affected groups must be developed before any satisfactory plan could be enacted into the law.

In the fall of 1935 the Council of the California Medical Association, at the request of many members of the Association, conducted a postcard poll of all of the licensed doctors of medicine in California. A copy of the results of this poll is attached hereto.

While I cannot speak officially at the moment, lacking definite action of the Council or the House of Delegates of the California Medical Association, I think I may justly say that the consensus of opinion in the Association today is to the effect that plans to extend medicine and hospital care on a budgetary basis should be voluntary in nature and should be of such nature as not to permit competition for business by small groups of physicians or hospitals.

The profession of medicine has always frowned upon self or other advertisement by physicians because great claims are misleading to patients. Plans which permit individuals or groups to compete for health insurance, clients, permit the groups to do this type of advertising and will result in the breakdown of standards of practice and a scramble for patients that will cut rates and reduce the quality of service rendered to the sick.

Progress in the solution of the future means of distribution of medical care should, I think, be gradual. Sensibly, the first step should take care of the most urgent of the necessities facing the sick man. Permit me to say that, as physicians, we know the hospital bill to be this necessity.

The hospital usually requires payment at the time of illness and this is understandable. Food, salaries, light, heat, water, and taxes have to be paid for and no criticism can be made of the hospitals for asking for money while the service is rendered. Many patients could have the willing services of many physicians if they could meet hospital bills for the hospital service necessary to permit the medical service, which would be gladly given or, at worst, paid for over long periods of time.

Under Assembly Bill 246 or the present insurance law of the state, agencies are operating, or preparing to do so, to furnish hospital service on a budgetary basis. The Alameda County Medical Association is about to start operation, the Intercoast Hospitalization Insurance Association—formerly the Superior California Hospital Association—is operating and expanding rapidly.

The next urgent problem is medical service, and since the present laws permit only individuals or partnerships of doctors of medicine (an impossible set-up for any widespread operation) to furnish medical service, a change in the law would be necessary and this might be made to create a public corporation of the physicians of California with rules for organization and self-government and permission to furnish health insurance to the people of the state. The Bar Association might serve as a starting point for some of the machinery and organization.

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* A list of references to editorial and other comment on the proposed California Qualifying Certificate (Basic Science) Act is given in the "News" department of this issue (page 533).

It is true that these plans are voluntary and that many of those needing the service will not avail themselves of it, but a successfully operated voluntary health insurance plan furnished by the physicians of California through an organization created by the legislature would furnish a wealth of experience upon which to base further extensions and logically would be the agency to which such service could be entrusted when, as and if such extensions were made.

The other alternatives are lay corporations doing the business on an indemnity basis and the opening of county hospitals to all residents of the counties, regardless of their ability to pay for medical and hospital service. We feel that this latter is an unjustifiable increase in taxes, and is unjust both to private hospitals that have grown up and represent huge investment of funds in the state and to the profession which today must not be singled out for competition by government, especially when such competition can be made badly political in its nature.

I do not believe that at present, and for some time to come, it will be possible to find enough interested groups who know or care enough about each other's problems under any proposed compulsory law, to permit the enactment of a fair and comprehensive plan.

Senate Bill 454 was bitterly criticized as a "doctors' bill" when, as a matter of fact, to anyone who knows anything about the problems of medical care, the physicians were taking the biggest risks of any group included in the act.

Cash benefits were demanded by many so that the "grocer could be paid." The physicians do not object to cash benefits, but they do contend that there is no reason in the world to set up another organization to handle these when there is already an organization in the state government handling "unemployment reserves." Unemployment because of illness is still unemployment, and to load a health insurance plan with the costs of a duplicate organization merely to speak of "cash benefits for illness" seems the height of foolishness and the work of spendthrifts. The disbursement of these funds could be handled easily enough by a report from one division to another. If no one else knows how it can be done, the physicians can set the method up.

In closing, let me repeat that medicine knows that there is a problem of the distribution of medical service; it does not believe that the present situation is hopeless; it believes voluntary hospital health insurance can be furnished without any drastic changes in our laws; and it believes that much study and coöperative effort are necessary before any comprehensive and fair compulsory plan can be considered—much less enacted into law.

CALIFORNIA MEDICAL ASSOCIATION: REFERENDUM NO. 2

Total Vote

	YES	NO
Shall the California Medical Association endorse any legislative change in the present system of medical practice?	1043	1438
Are you in favor of compulsory health insurance?	577	1819
Are you in favor of voluntary health insurance?	1265	905
(*a*) Voluntary health insurance carried on by the State of California?	244	933
(*b*) Voluntary health insurance carried on by lay companies under legislative control?	204	978
(*c*) Voluntary health insurance carried on by some form of organization of licensed physicians of California created by legislation?	2089	744

"Look carefully to the selection of your company. Make it largely medical and keep it so by tolerance and industry so that your skill may grow from meeting the skill of others. Shun the money-maker lest you become one. Cultivate the philosopher, because he needs you."

COMPONENT COUNTY MEDICAL SOCIETIES

HUMBOLDT COUNTY

The Humboldt County Medical Society met on the evening of May 7 at Scotia as guests of Doctor Cottrell. An excellent dinner was served at the Hotel Mowatoc, after which the meeting was held in the main dining room of the hotel, with Vice-President Allen Watson presiding.

Twenty-one members and one visitor were present.

Dr. Nelson Howard of San Francisco was our guest speaker for the evening. Doctor Howard spoke on *Fractures About the Shoulder and Crepitating Peridonitis*, and showed great ability in the manner of presenting the same.

After a very successful evening Doctor Watson thanked Doctor Howard for coming to us, and Doctor Cottrell for his hospitality and the opportunity of meeting in Scotia.

Lawrence A. Wing, *Secretary*.

PLACER COUNTY

The Placer County Medical Society held a dinner meeting at the Freeman Hotel, Auburn, Saturday evening, April 25, at seven o'clock. President Louis E. Jones presided. In addition to Doctor Jones, there were the following members and visitors:

Members—Dr. Robert A. Peers, president of the California Medical Association; Doctors Lucas W. Empey, E. E. Lundegaard, William Miller, C. E. Lewis, Mildred E. Thoren, J. Gordon Mackay, C. C. Briner, L. B. Barnes, Ray C. Atkinson, Vernon W. Padgett, Max Dunievitz, W. A. Vinks, H. N. March, and Paul D. Barnes.

Visitors—Dr. F. C. Warnshuis, secretary of the California Medical Association; Mr. Hartley Peart, general counsel of the California Medical Association, both of San Francisco; Dr. C. E. Schoff, councilor for the Eighth District, California Medical Association; Dr. Frank MacDonald, president of the Sacramento Society for Medical Improvement; Doctors Harry M. Kanner, F. N. Scatena, C. B. Jones, F. F. Gundrum, A. M. Henderson, and Dr. E. W. Beach and Mrs. Beach, all of Sacramento; Doctors H. L. Karo and Daniel Hirsch of Grass Valley.

The meeting was the official visit to the Placer County Medical Society by President Peers and the other officers above mentioned. President Peers gave an outline of his work during the past year. Doctor Warnshuis gave a résumé of the work of the California Medical Association, stressing the following two points:

1. What the Association is endeavoring to bring to its members.

2. The educational work carried on among the laity.

Mr. Peart gave a report of the year's activities of the general counsel and called attention to the many problems with which his office is confronted.

Doctors Schoff, MacDonald, and Gundrum made short addresses. There then followed general discussion, with many questions being asked Doctor Warnshuis and Mr. Peart regarding problems in which the members are interested. As President Peers and Secretary Warnshuis have noted during their visits to the various component county societies, the members of the Placer County Medical Society show, by their questions, that they have an intelligent interest in organized medicine.

Robert A. Peers, *Secretary*.

SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was called to order by the president, Dr. Frank A. MacDonald, on the evening of April 21 in the Auditorium at Twenty-ninth and L streets, Sacramento.

The speaker of the evening, Dr. B. O. Raulston of the School of Medicine at the University of Southern California, who spoke on the subject of *Bleeding Peptic Ulcers*, was introduced by the president. He discussed the subject in a scholarly and interesting manner, taking up the etiology, diagnosis and treatment in turn, as well as the history of the condition. He pointed out that peptic ulcer deaths are on the increase in Europe and Wales, and the condition is apparently on the increase because of more accurate means of diagnosis; and the increase in this disease parallels the increase in the stresses and strains of modern life. A good description of peptic ulcer was given in 1700, and in 1704 there was a good description of an autopsy performed on the seventeen-year-old wife of a doctor who died of a perforated ulcer of the stomach. The statistics, gathered from all sources, indicate duodenal ulcer is much more common than gastric, and this may be expressed by the equation 8-14:1. Massive hemorrhage from ulcer may come from three sources: primarily duodenum, stomach, or jejunum. Bleeding ulcers are limited to humans and sea lions, so far as is known, and are found more often in thin, highly strung dynamic individuals. In other words, "Doers rather than dreamers." It is more common in men than women. The speaker then enumerated the possible causes of ulcers, mentioning mechanical factors, infection, emboli, specificity of organisms, intercurrent disease, burns, arterial changes, changes in smaller vessels, functional or vasomotor changes, brain lesions, and vagal influences, probably emanating from emotional disturbances and trauma. Summarizing these possible causes, the speaker then stated that bleeding occurs primarily in chronic ulcers and that there is usually hypersecretion of gastric juice and that the resistance to this juice in the alimentary tract decreases the farther we travel from the stomach. Massive hemorrhages usually are diagnosed because of the critical situation presented. Statistics show that 15 to 18 per cent of gastric ulcers bleed and 20 to 25 per cent duodenal ulcers bleed in clinic patients, while 10 per cent of private patients with ulcers have massive hemorrhage. He pointed out that often after hemorrhage blood dilution is delayed and takes place slowly, so that the red blood count and hemoglobin estimation may be misleading at the time. The treatment may be divided into medical and surgical. Under medical treatment he suggested the following routine: Bed rest, sedative, hospitalization if within reasonable distance, opiates to reduce peristalsis and lower blood pressure, keep warm, normal salt solution subcutaneously, nothing by mouth, 5 per cent glucose in normal saline intravenously, and repeated blood transfusions. When death occurs in these patients it comes either from massive hemorrhage or from uremia. Emergency surgery should only be done in the presence of massive hemorrhage where the patient's age suggests sclerotic arteries in the site and then only if the diagnostician and surgeon agree. Interval surgery may be performed because of the possibility of malignant changes in gastric ulcer. The discussion of this phase of treatment he stated belonged to the surgeons, and the type of operation to the field of the surgeon. In conclusion, he presented statistics of the Los Angeles County Hospital of patients having bleeding peptic ulcers, showing the end-results to date, including the effects of various surgical procedures after the bleeding had ceased.

The applications of Doctors Arthur Kahler and La Verne Glenn were read for the second time and voted upon. Both were unanimously elected to membership in the Society. The applications of Doctors Lung Fung, Glenn E. Millar, and Leslie A. Runyan were read for the first time.

The report of the Board of Directors was read. It was moved, seconded, and passed, that the following resolution be adopted and copies thereof be sent to all the members of the Society.

Whereas, It is the sense of the Board of Directors of the Sacramento Society for Medical Improvement that we adhere closely to the "Principles of Medical Ethics" as laid down by the American Medical Association"; and

Whereas, These principles are as follows:

Article V. Differences Between Physicians
Arbitration

Section 1. . . .
Section 2. . . .
Section 3. . . .
Section 4. . . .

And

Whereas, It has come to the attention of the Board of Directors that the Sacramento Credit Union proposes to provide medical health service for its members; and

Whereas, It appears that this type of organization and fee schedule in its relation to the medical profession may be in direct conflict with the above principles; therefore be it

Resolved, That no member of the Sacramento Society for Medical Improvement shall undertake to provide medical services for this or any similar new organization until the same is approved by the Sacramento Society for Medical Improvement through its Board of Directors.

The following resolution referring to the Intercoast Hospitalization Insurance Association was also passed.

Whereas, The Intercoast Hospitalization Insurance Association is now a nonprofit, mutual association incorporated under the insurance laws of California and operating under a Certificate of Approval; and

Whereas, The Intercoast Hospitalization Insurance Association is mindful of and desires to be governed by the principles of medical ethics accepted and approved by the American Medical Association; and

Whereas, The service rendered by the Intercoast Hospitalization Insurance Association is now recognized as a valuable means of extending dignified relief to the sick and has proved of distinct value to the physicians of the community; be it therefore

Resolved, That the Sacramento Society for Medical Improvement hereby gives its endorsement of approval to the Intercoast Hospitalization Insurance Association; and be it further

Resolved, That the Board of Directors of the Sacramento Society for Medical Improvement be instructed to use its good offices to obtain the endorsement of the Intercoast Hospitalization Insurance Association by the California Medical Association.

Norris R. Jones, *Secretary*.

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SAN BERNARDINO COUNTY

The meeting of the San Bernardino County Medical Society was held at the Loma Linda Sanatarium on Tuesday, March 3.

Dinner was served in the main dining room at 7 p. m. Following dinner the members and guests adjourned to the new pathology building for the program of the evening. About seventy-five members and guests were present.

There being no business to come before the Society the president turned the meeting over to Doctor Macpherson, who took charge of the scientific program:

Clinical-Pathological Conference

Case Report—Atrophic Cirrhosis of the Liver by F. B. Moor. Discussion by O. I. Cutler.

Four Case Reports—Brain Tumors by E. C. Ehlers. Discussion by C. B. Courville and C. W. Olsen of Los Angeles.

Case Report—Carcinoma of the Ovary by Raymond F. Tatro. Discussion by O. I. Cutler.

* * *

The meeting of the San Bernardino County Medical Society was held at the San Bernardino County Charity Hospital on Tuesday, May 7, and was called to order by the president at 8 p. m. About fifty-five members and guests were present.

Dr. C. G. Hilliard presented the proposition of coöperation and correlation between the county medical society and the county health officer, Doctor Godfrey, and related the pleasant connections in the past.

To bring the matter before the Society, Doctor Hilliard moved that the president of the San Bernardino County Medical Society be empowered to appoint a committee of five, including the president and secretary of the society, as ex-officio members, to act as a coördinating committee with the county public health officer—Public Health Coordinating Committee. The motion was seconded by Doctor Emmons.

Following favorable discussion by Doctors Abbott, Wylie, and Godfrey, the motion was passed.

The president appointed the new committee as follows: Doctors C. G. Hilliard (chairman), F. E. Clough, C. L. Emmons, D. C. Mock, and A. E. Vardem (ex officio).

A motion was made by Doctor Dole and seconded by Doctor Emmons that Doctor Held's application for transfer from the Orange County Medical Society be approved. Passed.

The matter of soliciting doctors' cards for programs, etc., was brought up. A motion was made and seconded that any paid publication is unethical advertising. Passed.

The program of the evening was then given. Unfortunately one of the speakers, Doctor Tobias, was unable to be present due to illness.

Symposium on the Treatment of Contagious Diseases:

Typhoid Fever ('Phage Therapy); Meningococcus Meningitis—Paul M. Hamilton.

Diphtheria (Special Reference to the Heart); Scarlet Fever—H. I. Vener.

Poliomyelitis by R. W. Meals.

A. E. Varden, *Secretary.*

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SAN JOAQUIN COUNTY

The regular monthly meeting of the San Joaquin County Medical Society was held in the Medico-Dental clubroom on May 7. The meeting was called to order at 8:15 p. m., President O'Connor presiding.

The customary supper meeting was held at the Hotel Wolf at 6:15 p. m. There were twenty-five members and guests present. Dr. A. L. Van Meter gave a very interesting talk on his experiences in the clinics in Boston.

Dr. Dewey Powell presented a resolution of sympathy to Dr. John M. Hench in the passing of his wife, Myrtle M. Hench, on April 17.

President O'Connor made a report on the program of the local society concerning the Initiative petition which is being circulated in this county for the opening of the tax-supported hospitals. He stated it would be the policy of the local society to pursue a "hands off" policy until after the meeting of the California Medical Association at Coronado, where he hoped a definite state-wide policy would be adopted.

The petition of Dr. Leo D. Smith for membership to the medical society was read and referred to the Admissions Committee.

The papers of the evening were presented by Dr. H. Brown, who gave a very interesting paper on *The Neuralgias of the Cranial Nerves.* Dr. M. N. Hosmer then spoke on *Ear, Nose, and Throat Manifestations of Neuralgias of the Cranial Nerves.* Both papers were well received and caused considerable discussion from the floor.

There being no further business to come before the Society, the meeting was declared adjourned at 10:30 p. m. and refreshments were served.

G. H. Rohrbacher, *Secretary.*

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SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held on Monday evening, May 11, at Bissell Auditorium, President Gray presiding.

The speaker of the evening, Dr. William Boeck of Los Angeles, gave a most interesting and instructive talk on *Gastric Ulcers,* illustrated with slides.

The paper was discussed by Doctors Robinson, Koefod, Geyman, Stone, Clark, and Steele.

Mr. J. D. Williams of Los Angeles then gave a short talk on the influence of hygroscopic agents in cigarettes on throat irriations.

Doctor Ullmann reported for the State Council that the State Insurance Committee on Hospital Insurance would have a report at the Coronado meeting.

Doctor Hare reported for the Publicity Committee upon newspaper articles and lectures given by physicians.

Doctor Eaton reported for the Society Council upon the questionnaires regarding contract practice.

Doctor Geyman read a communication from Doctor Kelly concerning laboratory and x-ray work done by hospitals.

A motion was made by Geyman, seconded and unanimously carried, that the delegates from our Society support any plan regarding hospital insurance endorsed by the Council of the California Medical Association.

W. H. Eaton, *Secretary.*

TULARE COUNTY

The April meeting of the Tulare County Medical Society was held at Motley's Café on Sunday evening, the 19th.

The Tulare-Kings County Dental Association and nurses in Tulare County met with the Tulare County Medical Society by invitation to hear the representatives of the Public Health League of California.

In attendance were: Miss C. Britner, R. N., Miss N. Grant, R. N., Dentists John Lloyd, Marlowe Anderson, J. A. Wallace, E. C. Harper, Chris Weber, George Tannlund, Blackman, L. Lipson, R. H. Dalrymple, L. Carpenter, E. J. Ropes; Doctors A. Bond, Watke, Cronemiller, Betts, Zumwalt, A. Miller, Campbell, Barber, Parkinson, Rosson, Fillmore, Preston, Zellar, Ginsburg, Beck, McClure, Weiss, Guido, Falk, P. Miller, Matthias, and Brigham; District Councilor Dr. A. E. Anderson of Fresno, Dr. Peter Blong, Dr. Louis Packard, and Mr. Ben Reed, executive secretary of the Public Health League, were guests of the Society.

As an innovation, the first recorded (January, 1918) minutes of the Tulare County Medical Society were read and enjoyed, both for their historical value and indicating the presence of some of our present members in official service at this time.

The application of Dr. Frank L. Wiens of Porterville was presented, and he was unanimously elected to membership.

Guests were then introduced. Doctor Fannlund replied for the dental society. Dr. A. E. Anderson, councilor of the Fourth District, endorsed the welcome to the Public Health League officials and the meeting was turned over to them.

Mr. Ben Reed, executive secretary of the Public Health League of California, first presented Dr. Peter Blong, councilor from Alhambra, who related for us the history of the inception of the present Public Health League and explained the purposes of the League organization. Mr. Reed reported on the activities of the League in Sacramento at the last legislative session.

Dr. Louis A. Packard of Bakersfield related the assistance offered by the League in the Kern County problems and also gave us preliminary findings on the surveys of county hospitals with proposed recommendations to the California Medical Association.

At the conclusion of the meeting it was voted to organize a Tulare County chapter of the Public Health League to include nurses, dentists, doctors, veterinarians, and pharmacists. A practical unanimous response was had in obtaining signed memberships.

Thanking the officials for their assistance, the meeting adjourned.

* * *

The Tulare County Medical Society met at Motley's Café in Visalia for its regular meeting on Sunday evening, May 10. Dinner preceded the meeting.

In attendance were: Doctors Beck, Winns, Preston, Tourtillott, Matthias, Weiss, A. Miller, McClure, Fillmore, Ginsburg, Cronemiller, Rogers, Seiberth, Brigham, P. Miller, Rosson, Zumwalt, and Kohn.

The first part of the evening was devoted to the scientific paper. Dr. George F. Schenck, urologist from Los Angeles, presented a paper on *The Cause of Death.* The subject was based on the anatomical diagnosis as found in one thousand consecutive autopsies. Special emphasis was placed on the urologic pathology portrayed. Graphic slides were used in illustration. In addition, a moving picture portraying the instruments used in transurethral resection was shown and a demonstration was given of the radio knife.

Doctor Zumwalt urged us to be on the lookout for any poliomyelitis cases. Three cases have been reported in the county to date.

The Constitution Committee presented a completed draft of the constitution and by-laws for the Tulare County Medical Society. Essential points were read and the report was unanimously adopted.

Appreciation and an expression of thanks from the Society were given the committee for their efforts in preparing this work. The committee consisted of Dr. A. W. Preston and Dr. A. Miller.

The Publicity Committee reported on its investigations, and has available reprints and talks on many subjects.

There being no further business the meeting adjourned at 10:10 p. m.

Karl F. Weiss, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (29)

Fresno County.—Max M. Goldstein.

Imperial County.—William T. Heffernan.

Los Angeles County.—Jerome W. Bodlander, Nathan Dansky, Marion P. Firor, Ethel M. Hamilton, Samuel Rodman Irvine, Joseph M. Kinkade, Edward N. Lindquist, Alonzo Y. Olsen, Roy J. Popkin, Julius Simon.

Orange County.—William Schroer, Leonard M. Taylor.

Sacramento County.—Albert A. Almada, LaVerne P. Glenn, Arthur R. Kahler.

San Diego County.—George F. Harsh, E. H. Kelley, John O. Kellogg, Eaton M. MacKay.

San Francisco County.—Harold M. Hand, Samuel Hurwitz.

San Luis Obispo County.—Claude Stafford.

Santa Barbara County.—Harry C. DeVighne, Godfrey Steinert.

Santa Clara County.—Mary C. Wilbin.

Shasta County.—Gottlieb L. Orth.

Sonoma County.—Frank E. Sohler, Jr.

Transferred (7)

Joyce A. Albert, from Stanislaus County to Butte County.

William H. Barnes, from Butte County to Alameda County.

Edwin R. Cole, from Siskiyou County to Fresno County.

Robert E. Hughes, from San Francisco to Los Angeles County.

John M. Scanland, from Santa Clara County to Napa County.

G. G. Wetherill, from Santa Clara County to San Diego County.

Henry L. White, from Tehama County to Shasta County.

Resigned (6)

L. D. Bacigalupi, from San Francisco County.

Charles W. Barnett, from San Francisco County.

William E. Chamberlain, from San Francisco County.

Henrietta Damkroeger, from San Francisco County.

Olive N. Ehrenclou, from San Francisco County.

Lloyd E. Hardgrave, from San Francisco County.

In Memoriam

Ames, Elwin Witt. Died at Los Angeles, April 6, 1936, age 69. Graduate of University Medical College of Kansas City, 1894. Licensed in California in 1920. Doctor Ames was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✠

Baumeister, Edward Emery. Died at San Francisco, May 3, 1936, age 58. Graduate of the University of California Medical School, San Francisco, 1904. Licensed in California in 1905. Doctor Baumeister was a retired member of the Butte County Medical Society, the California Medical Association, and the American Medical Association.

✠

Bixby, Edward Marcelius. Died at Oakland, April 24, 1936, age 77. Graduate of College of Physicians and Surgeons, San Francisco, 1899, and licensed in California the same year. Doctor Bixby was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Brewer, Lambert Cleveland. Died at Monrovia, May 10, 1936, age 60. Graduate of Atlanta College of Physicians and Surgeons, 1901. Licensed in California in 1921. Doctor Brewer was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✠

Chidester, Walter Clifford. Died at San Mateo, April 21, 1936, age 61. Graduate of the Medical College of Ohio, Cincinnati, 1896. Licensed in California in 1906. Doctor Chidester was a member of the San Mateo County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✠

Gatliff, William Walker. Died at Chico, May 12, 1936, age 79. Graduate of St. Louis College of Physicians and Surgeons, 1884. Licensed in California in 1885. Doctor Gatliff was a member of the Yolo-Colusa-Glenn County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✠

Golding, Daniel G. Died at Santa Monica, April 18, 1936, age 66. Graduate of Jefferson Medical College of Philadelphia, 1890. Licensed in California in 1920. Doctor Golding was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✠

Harrison, Fred. Died at Gridley, April 24, 1936, age 66. Graduate of the California Eclectic Medical College of Los Angeles, 1905. Licensed in California in 1920. Doctor Harrison was a member of the Butte County Medical Society, the California Medical Association, and the American Medical Association.

✠

MacLeish, Archibald Campbell. Died at Los Angeles, May 4, 1936, age 53. Graduate of the University of Southern California School of Medicine, 1908, and licensed in California the same year. Doctor MacLeish was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✠

Noggle, George Elliott. Died at Chino, April 8, 1936, age 64. Graduate of the Kansas Medical College, Topeka, 1895. Licensed in California 1923. Doctor Noggle was a member of the San Bernardino County Medical Society, the California Medical Association, and the American Medical Association.

Highest Calling.—"None of us may measure devotion to our cause—no training can be too arduous, no discipline too stern. In dealing with menacing realities, the surgeon must possess courage and humility; must feel confident in his strength, sincere and tender in its timely application; must work with an exactitude that is piety. For us an operation is an incident in the day's work, for our patient it may be—no doubt it often is—the sternest, most dreaded of all trials, for mysteries of life and death surround it, and it must be faced alone. To give courage to those who need it, to restore desire for life to those who have abandoned it, with our skill to heal disease or to check its course—this is our great privilege. Ours not the concerns of ordinary life. We who, like the Happy Warrior, are doomed to go in company with Pain and Fear and Bloodshed, have a higher mission than other men, and it is for us to labor that we may prove not unworthy."

As to "posing"; this is universal, and differs among humans only in degree. Posing to some extent is desirable. Complete frankness would demolish the social structure. But be not deceived. Extreme pretentiousness is as obvious as the sun. Mannerisms would betray the pretender if words failed to do so.

THE WOMEN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. THOMAS J. CLARK..President
MRS. ELMER BELT......Editor and Chairman of Publicity

State Auxiliary News

State Program Planning Shows Progress.—Mrs. John V. Barrow, state chairman of Program and Health Education, has given, in her report for the year, an interesting account of the accomplishments in health education in some of the California counties in coöperation with the Parent-Teacher Association. Many of the Auxiliary members are officers in the association and actively interested in the health and hygiene programs. It has been their endeavor to present the best in scientific medicine and to discourage the presentation of material by uninformed and poorly trained individuals. There have been established, in some of the larger counties, Speakers' Bureaus where the names of many men and women of scientific training and speaking ability are kept on file, so that they may be readily contacted when a request for a speaker in their field is received. These busy individuals have given most generously of their time and effort in placing reliable information before the general public.

Mrs. Barrow's report says: "Small health-study groups have been established, and at these our own members many times conduct the meetings. The study envelopes furnished by the American Medical Association and *Hygeia* have been used with great satisfaction. Four hundred letters explaining the aims for health education, together with programs, were sent to the hygiene chairmen of the Parent-Teacher Association. Such topics as the following have been chosen by them: "The Child's Right to Normal Health," "Mental Hygiene," "Contagion," "Keeping the Well Child Well," etc. Much other material published by the American Medical Association has also been used by them. *Hygeia* has been placed in many schools, and is very well recognized as the only health magazine for general lay use. The Little Health Plays have been presented in many schools. The Los Angeles County Auxiliary sent for fifty plays which have already been distributed."

County Auxiliary Reports

Alameda County.—The April meeting of the Alameda Auxiliary was held on the 17th at the Claremont Country Club. It was preceded by a board meeting in the morning and the regular friendly half-hour before luncheon, at which Mrs. T. Floyd Bell and her committee served as hostesses. The day's speaker was Dr. Agnes Fay Morgan of the household science department of the University of California, who held the complete interest of her audience with her talk on "Diet Fads." At the business session, following the address, the report of the Nominating Committee was read: President, Mrs. Clarence Page; president-elect, Mrs. Frank Baxter; vice-president, Mrs. A. A. Alexander; recording secretary, Mrs. C. E. Peters; corresponding secretary, Mrs. R. A. Young; treasurer, Mrs. Hobart Rogers. The new directors chosen are: Mesdames J. K. Hamilton, O. T. McCalister, H. H. Meredith, John Ohanneson, with Mrs. T. Floyd Bell and Mrs. Lloyd Kindall to continue from this year.

Mrs. Robert T. Sutherland, the county president, says in reporting on the year's programs: "In May a musicale will bring the year's meetings to a close—a year filled with inspiring programs, under the leadership of Mrs. Harold Trimble. At this time we will have our mothers as guests. It finishes the year's efforts, but only to cause the members to eagerly look forward in anticipation to another such profitable year."

Los Angeles County.—That there is no compulsory physical examination of food handlers in Los Angeles and that one spoon can comfortably accommodate 750,000 bacteria, were two arresting statements made by Dr. John V. Barrow in his address before the April meeting of the Woman's Auxiliary. Doctor Barrow went on to tell of the disastrous consequences resulting from diseased food-handlers. For example, out of a passenger list of three hundred, two hundred and thirty-five persons contracted disease, five dying—all related to the meat cook, who suffered from an afebrile type of typhoid fever. "Typhoid Mary" and her wake of fifty-five known cases with three traceable deaths was also mentioned. To remedy this condition New York City initiated compulsory physical examination of her 350,000 food-handlers, but political pressure became too great and this service was dispensed with, and in so doing six thousand active tuberculosis cases alone were overlooked, each of whom was capable of passing the disease on to five others. We are far advanced in our methods of treating tuberculosis, yet the disease is spreading because we will not control it. A few years ago the city health officers of Los Angeles attempted to make physical examination of food-handlers compulsory; however, they only succeeded in making the service a voluntary one. There is no record of food-handlers in this city, but the number probably approximates one hundred thousand. Out of four thousand examined by Dr. George Parrish in one month, five hundred were found to be infected with either venereal disease or tuberculosis. Doctor Barrow concluded his remarks by saying this situation can only be corrected through informed public opinion, and he felt it the responsibility of the women to arouse the interest of the community to this end.

Dr. Verne Hauser discussed the subject of *Scarlet Fever: Its Classification, Treatment, and Prognosis,* explaining that the death rate numbers less than two per cent in cases without complications. Medical asepsis, which is so effective in the contagious wards, was also described by Doctor Hauser. Out of five thousand cases of communicable diseases in the General Hospital during 1935, the cross-infection rate was far less than one per cent.

Mr. Ben Reed of the Public Health League, for whom the Auxiliary feels a real kinship because of his regular yearly appearances, spoke briefly on legislative aspects of scientific medicine.

On May Day a membership tea was held at the beautiful new home of Mrs. William H. Daniel, the Rancho del Burro at La Canada. After a short talk by Mrs. John V. Barrow, president, whose great enthusiasm is for the work of the Auxiliary, a delightful tea was served.

The Harbor Branch held their regular dinner meeting on May 5 at Long Beach, Mrs. John V. Barrow being the guest of honor. The Nominating Committee presented the names of officers for the ensuing year: Mrs. Francis Hertzog, chairman; Mrs. F. R. McCrea, vice-chairman; and Mrs. R. B. Eusden, secretary. After the business meeting there followed a lecture on art, the speaker illustrating his talk by the unique method of painting a picture and explaining the stages through which an artist progresses until his work is completed.

Mrs. Harold E. Crowe, *Corresponding Secretary.*

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Marin County.—The regular monthly dinner meeting of the Woman's Auxiliary to the Marin County Medical Society was held on March 26 at the Marin Golf and Country Club, with Mrs. Harry Hund presiding in the absence of Mrs. Robert Furlong, the president, who was ill. The speaker and guest of honor was Mrs. Thomas J. Clark of Oakland, the state president, who gave a most interesting talk about the growth and aims of the Woman's Auxiliary. Mrs. E. Taylor Dykes of Oakland was also the guest of the Auxiliary, and played two delightful composition on the piano. After the program a short business meeting was held.

Carol Fowler, *Publicity Chairman.*

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Orange County.—Mrs. R. C. Green, in conducting the business portion of the meeting held on May 5 at the home of Mrs. Claude Steen in Santa Ana, appointed Mrs. G.

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† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Elmer Belt, chairman of the Publicity and Publications Committee, 2200 Live Oak Drive, Los Angeles. Brief reports of county auxiliary meetings will be welcomed by Mrs. Belt and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editor to allocate two pages in every issue for Woman's Auxiliary notes.

Wendell Olson chairman of a committee to coöperate with the Public Health League in its work at the fall election. She asked Mrs. Harry Huffman to head a committee to make all arrangements for the June fiesta.

The program was distinctly enjoyable. Mrs. Dana S. Newkirk of Fullerton, pianist, played Debussy's "Clair de Lune," "Rhapsody in C Major" by Dohuanyi and, as an encore, Chopin's "Minute Waltz." Mrs. H. D. Newkirk of Anaheim reviewed Ruth Lamb's "American Chamber of Horrors," and discussed the new Copeland Bill, designed to correct the sale of many of the impure and unstandardized foods and harmful drugs which the book describes. Later the hostesses, Mesdames Claude and E. J. Steen, J. W. Camp, E. W. Kersten, Charles Petty, and S. Theron Johnston, served tea. Mrs. Olson and Mrs. Harry Zaiser poured.

Jessie Q. Raitt, *Publicity Chairman.*

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Sacramento County.—The meeting of the Auxiliary to the Sacramento County Society for Medical Improvement was held on April 21 at the home of Mrs. Edward S. Babcock. The meeting was called to order by our new president, Mrs. E. O. Brown. The following were hostesses: Mesdames Raymond Wallerius, Dave Dozier, Cordes Ankele, Louis Barrette, and Harry M. Kanner. For delegates to the State convention at Coronado the following were appointed: Mesdames George Briggs, Junius B. Harris, Nathan Hale, with Mesdames Robert Peers, Edward Babcock, and Orrin Cook to serve as alternates. Mrs. John D. Lawson was chosen as delegate to the national convention at Kansas City.

On April 3 a tea was given at the home of Mrs. E. O. Brown for the visiting doctors' wives of the Tuberculosis Association.

Following the regular meeting refreshments were served by the hostesses of the day.

Mrs. John D. Lawson, *Corresponding Secretary.*

Conservation of Vision. — The steady progress in the United States toward elimination of the principal causes of vision impairment and total loss of sight is described by the National Society for the Prevention of Blindness in its twenty-first anual report, made public recently (April, 1936) by Lewis H. Carris, managing director. "To those engaged in the work of sight conservation the accomplishment of the past promises an ever-decreasing number of needlessly blind," says the report, entitled "Looking Forward." "Scientific advances and public education encourage us to look forward to the time when there will be no blindness from preventable causes."

In releasing the report, Mr. Carris said: "The means of safeguarding the eyes of infants at birth, of conserving the sight of school children, and of protecting the eyes of industrial workers are becoming more and more generally known. The American public is showing its eagerness to take advantage of the research and experience of the thousands of doctors, nurses, educators, safety engineers, illumination experts, social workers, and others who are devoting their energies to this cause."

The report discloses an 80 per cent increase, during the last decade, in the number of sight-saving classes for the education of school children with seriously defective vision. There were 260 of these special classes in 1925, and 476 in 1935, despite the smaller budgets of local departments of education in recent years. Approximately 6,000 boys and girls are now enrolled. The Society estimates, however, that 44,000 additional school children are in need of the special facilities and teaching methods afforded by sight-saving classes, if they are to receive a full and normal education without injury to the eyes and without strain upon their physical and nervous systems.

Other activities summarized in the report include sponsorship of the special training of social workers for service in eye clinics; coöperation with industry to protect the eyes of workmen in hazardous occupations; a campaign to prevent eye injuries from Fourth-of-July fireworks; collaboration with public health agencies in promoting routine blood tests for expectant mothers as a precaution against syphilis, which is one of the most serious causes of blindness; the holding of round-table meetings in various sections of the country for the benefit of public health nurses, especially those in schools; utilization of teacher-training centers for promoting sight conservation among school children; and continuation of the society's effort to halt blindness from ophthalmia neonatorum, commonly known as "babies' sore eyes," through compulsory use of prophylactics in the eyes of infants at birth.

The society's motion-picture film, "Preventing Blindness and Saving Sight," was exhibited to more than a thousand different audiences throughout the United States; prints of the film were used also in Hawaii, Brazil, Cuba, and Japan. Members of the staff visited eighty-two cities in twenty-six states, to assist local groups interested in sight conservation. Nearly a quarter-million pamphlets were distributed during the year.

The society now has on its roster of members and donors approximately 20,000 men and women representing every section of the country. Its work is supported entirely by voluntary public contributions. Income for 1935 was $109,000 and expenditures were $134,000, necessitating the use of $25,000 from the reserve fund.

Elihu Root is honorary president, and the following are honorary vice-presidents: Dr. George E. deSchweinitz, John H. Finley, Senator Thomas P. Gore, Helen Keller, Mrs. Winifred Holt Mather, and Lillian D. Wald. The active officers are William Fellowes Morgan, president; Dr. Park Lewis, Russell Tyson, and Preston S. Millar, vice-presidents; and George C. Clark, treasurer.

Prayer for Physicians—(By Maimonides[*]). — O God, Thou hast formed the body of man with infinite goodness; Thou hast united in him innumerable forces incessantly at work like so many instruments, so as to preserve in its entirety this beautiful house containing his immortal soul, and these forces act with all the order, concord, and harmony imaginable. But if weakness or violent passion disturb this harmony, these forces act against one another and the body returns to the dust whence it came. Thou sendest then to man Thy messengers, the diseases which announce the approach of danger, and bid him prepare to overcome them. The Eternal Providence has appointed me to watch o'er the life and health of Thy creatures. May the love of my art actuate me at all times, may neither avarice, nor miserliness, nor the thirst for glory or a great reputation engage my mind; for, enemies of truth and philanthropy, they could easily deceive me and make me forgetful of my lofty aim of doing good to Thy children. Endow me with strength of heart and mind, so that both may be ready to serve the rich and the poor, the good and the wicked, friend and enemy, and that I may never see in the patient anything else but a fellow creature in pain.

If physicians more learned than I wish to counsel me, inspire me with confidence in and obedience toward the recognition of them, for the study of the science is great. It is not given to one alone to see all that others see. May I be moderate in everything except in the knowledge of this science; so far as it is concerned, may I be insatiable; grant me the strength and opportunity always to correct what I have acquired, always to extend its domain; for knowledge is boundless and the spirit of man can also extend infinitely, daily to enrich itself with new acquirements. Today he can discover his errors of yesterday, and tomorrow he may obtain new light on what he thinks himself sure of today.

O God, Thou hast appointed me to watch o'er the life and death of Thy creatures; here am I ready for my vocation.

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[*] Maimonides (Rabbi Moses Ben Maimon), also known from the initials of these last words as Rambam, philosopher and master of Rabbinic literature, was born in Cordova, Spain, in 1135. He was educated by his father and by Arabic masters. He left Spain when he was thirteen years old and settled eventually in Fez. Five years later he moved to Cairo, where he became recognized as the greatest Rabbinic authority of his time. He served as body physician to Saladin. Maimonides died in 1204. (See also March, 1936, issue of California and Western Medicine, on page 192.)

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Association for the Study of Goiter, Chicago, June 8-10, 1936. W. Blair Mosser, M. D., 133 Biddle Street, Kane, Pensylvania, corresponding secretary.

Medical Library Association, St. Paul, June 22-23, 1936. Miss Janet Doe, 2 East 103rd Street, New York, secretary.

Western Section of the American Congress of Physical Therapy, Los Angeles, June 18, 1936. Fred B. Moor, M. D., Loma Linda Sanitarium and Hospital, Loma Linda, secretary.

Medical Broadcasts*

The American Medical Association broadcasts have been discontinued for the summer months. A new series is under consideration for the autumn and winter of 1936-1937.

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San Francisco County Medical Society. — The radio broadcast program for the San Francisco County Medical Society for the month of June is as follows:

Tuesday, June 2—KYA, 6 p. m.
Tuesday, June 9—KYA, 6 p. m.
Tuesday, June 16—KYA, 6 p. m.
Tuesday, June 23—KYA, 6 p. m.
Tuesday, June 30—KYA, 6 p. m.

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Los Angeles County Medical Association.—The radio broadcast program for the Los Angeles County Medical Association for the month of June is as follows:

Tuesday, June 2—KECA, 10:30 a. m. Subject: The Road of Health.
Saturday, June 6—KFI, 9 a. m. Subject: The Road of Health.
Saturday, June 6—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, June 9—KECA, 10:30 a. m. Subject: The Road of Health.
Saturday, June 13—KFI, 9 a. m. Subject: The Road of Health.
Saturday, June 13—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, June 16—KECA, 10:30 a. m. Subject: The Road of Health.
Saturday, June 20—KFI, 9 a. m. Subject: The Road of Health.
Saturday, June 20—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, June 23—KECA, 10:30 a. m. Subject: The Road of Health.
Saturday, June 27—KFI, 9 a. m. Subject: The Road of Health.
Saturday, June 27—KFAC, 10:15 a. m. Subject: Your Doctor and You.
Tuesday, June 30—KECA, 10:30 a. m. Subject: The Road of Health.

Surgeons Honor Dr. Leo Eloesser.—An Associated Press news dispatch from Rochester, Minnesota, of May 5, stated: Dr. Leo Eloesser of San Francisco was elected president of the American Association of Thoracic Surgeons at an executive meeting of the Association.

Los Angeles Neurological Society.—The neurological staffs of the medical, surgical, and pathologic services of the Los Angeles County Hospital have organized a society known as the Los Angeles Neurological Society, which meets every Thursday evening at the hospital for presentation of the most instructive and interesting cases on the services. This society has met regularly for two years. Beginning with this year a publication, known as the *Bulletin of the Los Angeles Neurological Society*, is being issued quarterly. This is to contain brief papers, mostly case reports, written by the members of the attending staff and residents. The secretary is Dr. J. M. Nielsen, 727 West Seventh Street, Los Angeles.

Sterilization Need Stressed.—Segregation or sterilization of mental defectives, preferably in their youthful years, was urged yesterday by H. E. Kellington, divisional director of the Los Angeles County probation department.

Speaking before the Los Angeles Methodist Ministers' Association at the First Methodist Church, Kellington declared that "society must soon face the problem squarely for the general welfare and for the sake of the unfortunates."

"In 1932 the Juvenile Court made a study of 14,000 consecutive cases of juvenile delinquency," Kellington said. "Forty-eight per cent of the children brought before the court were mentally subnormal. About the same percentage of mental defectives is found in the prison population."

Veils of religious prejudice and prudery must be withdrawn and the question of what to do with mental defectives must be discussed in an intelligent manner, Kellington declared. Through church agencies, he said, churches can aid greatly in bringing about a reduction in juvenile delinquencies.—*Los Angeles Examiner*, May 19, 1936.

Registration Under Harrison Narcotic Act.—Every physician registered under the Harrison Narcotic Act must re-register on or before July 1 with the collector of internal revenue of each district in which he maintains an office or a place for the treatment of patients. Failure to re-register within the time allowed by law adds a penalty of 25 per cent to the annual narcotic tax payable at the time of registration and, in addition, makes the physician in default liable to a fine not exceeding $2,000, or to imprisonment for not exceeding five years, or to both. The Commissioner of Internal Revenue has been so lenient in the past in enforcing the criminal penalties provided by the Act that many physicians seem to have assumed that promptness in re-registration is not material. Year after year they have registered tardily. Since repeated warnings have failed to correct the situation, the commissioner has recently given negligent or recalcitrant physicians the choice between paying substantial sums by way of compromise in lieu of the penalties for their offenses or, as an alternative, accepting criminal prosecution, with resultant publicity and liability to fines of indefinite amounts and possibly imprisonment. This was an act of grace on the part of the commissioner, since he might have instituted criminal prosecutions without allowing the offending physicians any choice in the matter. If the course that the commissioner has adopted does not produce the desired promptness in registration, he will have no recourse other than criminal prosecution to attain that result. If tardiness in registration results in criminal prosecutions, with incidental publicity and the possibility of fine and imprisonment, physicians will recognize that ample notice has been given them.—*Journal of the American Medical Association* May 16, 1936.

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* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Western Section, American Congress of Physical Therapy.—The annual meeting of the Western Section of the American Congress of Physical Therapy will be held in Los Angeles on June 18, 1936. Session will be held in the Los Angeles County Medical Association Building, 1925 Wilshire Boulevard.

The Program Committee has been fortunate in securing as guest speaker, Dr. William Bierman of New York City. Doctor Bierman has done a great deal of original work in the field of physical therapy and is the author of several scientific articles.

The fee for the seminar is $5, which includes the ticket to the banquet.

PROGRAM

Morning Session

Cora Smith King, M. D., Chairman

10:00 to 10:10—Opening Remarks: John Severy Hibben, M. D., Pasadena, President of the American Congress of Physical Therapy.

10:10 to 10:30—The Use of Short-Wave Currents: William Bierman, M. D., New York City.

Discussion by C. J. Breitwieser, E. E., California Institute of Technology, Pasadena, and David H. Kling, M. D., 1930 Wilshire Boulevard, Los Angeles.

10:30 to 11:00—The Use of Ultra-Violet Radiation in Clinical Medicine, with Special Reference to Cutaneous Diseases: Julius R. Scholtz, M. D., Instructor in Medicine (Dermatology and Syphilology), University of Southern California Medical School.

Discussion by Robert C. Burt, Ph. D., Burt Scientific Laboratories, Pasadena, and Samuel Ayres, Jr., M. D., Professor of Dermatology, College of Medical Evangelists, Los Angeles.

11:00 to 11:30—Posture: Rodney F. Atsatt, M. D., Santa Barbara, member of the Committee on Physical Therapy, California State Medical Society.

Discussion by Harold E. Crowe, M. D., Clinical Director, Los Angeles Orthopedic Hospital, Los Angeles.

11:30 to 12:00—End-Result Studies of Osteomyelitis and Acute Pyogenic Joint Infections Treated in the Warm Salt Water Pool: A. Brockway, M. D., Director of Surgery, Orthopedic Hospital, Los Angeles.

Discussion by Vernon P. Thompson, M. D., F. A. C. S., Orthopedic Division, University of Southern California Medical School, Los Angeles.

Afternoon Session

Cleon W. Symonds, M. D., Chairman

2:00 to 2:10—Registration of Physical Therapy Technicians: John Severy Hibben, M. D., Pasadena, President of the American Congress of Physical Therapy.

2:10 to 2:30—Vitamins in Medicine: Henry Borsook, Ph.D., M.D., Professor of Biological Chemistry, California Institute of Technology, Pasadena.

Discussion by Arthur A. Gould, M.D., member of attending staff, Cedars of Lebanon Hospital, Los Angeles.

2:30 to 3:00—The Temperature of the Surface of the Skin, with Special Reference to the Diagnosis and Treatment of Peripheral Vascular Disease: William Bierman, M. D., New York City.

Discussion by Grace Pearl Jennings, M. D., Director of the Department of Physical Medicine, California Hospital, Los Angeles.

3:00 to 3:30—Physical Therapy and the Industrial Surgeon: P. A. Quaintance, M. D., F. A. C. S., 2007 Wilshire Boulevard, Los Angeles.

Discussion by E. Bertrand Woolfan, M. D., 1724 North Highland Avenue, Hollywood.

3:30 to 4:00—Massage in the Treatment of Fractures: Max A. Levine, M. D., 2007 Wilshire Boulevard, Los Angeles.

Discussion by M. C. Cameron, M. D., Assistant Professor of Surgery, College of Medical Evangelists, Los Angeles.

4:00 to 4:30—The Treatment of Gonorrhea in the Female by Means of Systemic and Additional Pelvic Heating: William Bierman, M. D., New York City.

Discussion by Rodney F. Atsatt, M.D., Santa Barbara.

4:30 to 5:00—Legal Aspects of Physical Therapy: Mr. William Rains, Los Angeles, Attorney for the Medical Protective Company, Fort Wayne, Indiana.

General discussion and questions.

Evening Session

John Severy Hibben, M. D., Chairman

7:00 to 10:00—Banquet: Toastmaster, Edward M. Pallette, M. D., Los Angeles, President-Elect, California State Medical Association.

Address: Fever Therapy—William Bierman, M. D., New York City.

Death of Dr. Campbell P. Howard, Guest Speaker at Coronado Annual Session.—The Los Angeles *Times*, in its issue of June 4, 1936, printed the following:

DOCTOR VISITING BEACH EXPIRES

> Santa Monica, June 3.—Dr. Campbell P. Howard, who came here from Montreal as a guest speaker last week at the Coronado convention of the California Medical Association, died here today. He was 59 years of age and was a professor of medicine at McGill University, Montreal.
>
> While in Santa Monica he was the guest of Dr. Charles J. Rowan.

Possible Medical Use of Neutrons Shown by Studies. A May 4 dispatch from Atlantic City follows:

Hopes of medical science for a more powerful weapon in its fight against cancer were strengthened by a report delivered before the American Society of Clinical Investigations today by Dr. John Lawrence of Yale University, and P. A. Aebersold and Dr. E. O. Lawrence of the University of California.

Dr. John Lawrence stated that new tests just completed in the Radiation Laboratory of the University of California indicate that the neutron ray may prove to be a more effective means of treating malignant tumors than is the x-ray. It has been demonstrated that this is true concerning one type of cancer in mice, but the results will have to be confirmed by other experiments before conclusions can be drawn concerning its application to human beings.

The tests were performed on a series of six hundred mice of a strain which is peculiarly susceptible to a type of malignant growth known as sarcoma 180.

It was found by test that the differential effect of neutron discharge on cancerous cells and on normal cells in mice is greater than the differential for the x-ray. That is, the neutron ray is four times as lethal as the x-ray on sarcoma 180, but only 2.7 times as lethal on healthy mice. Seven hundred to 750 roentgen units of the neutron discharge will reduce the virility of sarcoma 180 to a point where it will not grow when implanted in mice. On the other hand, 3,000 roentgen units of the x-ray are required to accomplish the same result.

When healthy mice were subjected to the two types of ray, it was found that the neutron was only 2.7 times as lethal as the x-ray. In other words, in the case of mice, it is possible to choose a definite dosage of neutrons which will be more destructive to cancer cells, but no more destructive of life than is the x-ray.

The importance of this, if further experiments show the same relation to hold on other types of cancer and on the human body, is indicated by the fact that some cancer specialists have declared that an increased differential effect of radiation on diseased and healthy tissue would lead to a geometrically greater number of cancer cures. Some estimates have been made that the x-ray is on the average about 20 per cent more lethal for cancer cells than for normal cells. Often it is impossible to give a large enough dosage of x-ray to kill the malignant growth without doing damage to the patient. If the differential of 20 per cent could be increased to 30 per cent, the story would be different. It is from this point of view that the neutron ray appears to offer strong hope to science.

The idea that neutron rays might show a wide differential in their effect on different tissues was suggested by preliminary tests in the summer of 1935. The Lawrence brothers found that in changing the blood picture of rats the neutron ray was about five times as powerful as the x-ray. At the same time, Aebersold and Dr. R. E. Zirkle of the University of Pennsylvania, demonstrated that in its effect on the tissue of wheat seedlings, the neutron ray was about ten times as powerful as the x-ray. From this it was suggested that there might be a similar difference in effect on various types of tissue within the same body.

Medical Library Meeting.—The thirty-eighth annual meeting of the Medical Library Association will be held in St. Paul, Minnesota, June 22 and 23, 1936, and in Rochester, Minnesota, June 24. Sessions will be held at the Ramsey County Medical Society, New Lowry Medical Arts Building, St. Paul, and at the Mayo Clinic, Rochester.

The program will include addresses, discussions, and demonstrations on library procedure, medical history and literature.

This association consists of about 175 of the medical libraries of this country and Canada, together with their librarians and a group of supporting members who are physicians interested in the advancement of medical libraries.

The officers of the association are as follows: President, Dr. W. W. Francis of Montreal; vice-president, Dr. A. H. Sanford of Rochester, Minnesota; secretary, Miss Janet Doe, 2 East 103rd Street, New York; treasurer, Miss Mary Louise Marshall of New Orleans. Chairman of Executive Committee, Miss Marjorie J. Darrach of Detroit.

All interested in the development of medical libraries and a wider knowledge of medical literature are invited to attend.

Qualifying Certificate (Basic Science) References.—On page 526 is an item concerning the proposed California qualifying certificate law. This law has been discussed in previous issues, as follows:

Vol. XXVII, No. 4, October, 1927, page 525. Editorial.
Vol. XXXI, No. 4, October, 1929, page 285. Editorial.
Vol. XL, No. 3, March, 1934, page 194. Editorial.
Vol. XL, No. 4, April, 1934, page 302. Report of Special Committee on a Basic Science Act.
Vol. XL, No. 5, May, 1934, page 379. Editorial.
Vol. 41, No. 5, November, 1934, page 339. Editorial.
Vol. 42, No. 1, January, 1935, page 39. Editorial.
Vol. 43, No. 5, November, 1935, page 321. Editorial.
Vol. 43, No. 6, December, 1935, page 395. Editorial.
Vol. 44, No. 1, January, 1936, page 2. Editorial.
Vol. 44, No. 4, April, 1936, page 252. Editorial.
Vol. 44, No. 4, April, 1936, page 349. Special Article.
Vol. 44, No. 5, May, 1936, page 425. Report of Special Committee on a Qualifying Certificate (Basic Science) Law.

First International Conference on Fever Therapy.—The First International Conference on Fever Therapy is to be held at Columbia University, New York City, from September 29 to October 3, 1936.

The subjects to be discussed will include physiologic and pathologic changes as well as the treatment of gonorrhea, both in the male and in the female; gonorrheal and nonspecific arthritis; syphilis in its various stages; neurologic conditions such as multiple sclerosis, chorea, paresis, tabes; skin diseases, etc.

This meeting will be held under the chairmanship of Baron Henri de Rothschild of Paris, France. The French committee, of which Professor d'Arsonval is honorary president, is under the chairmanship of Professor Abrami. Other members of this committee include Professors Alajouanine, Binet, Claude, Janet, Lardennois, Laubry, and Levaditi, and the general secretaries of the committee, Doctors Talphen and Auclair.

The American committee consists of Doctors Desjardins, Bierman, Hartman, Hinsie, Neymann, Simpson, and Warren.

National European committees are being formed under the direction of Professors Maranon of Spain, Frugoni of Italy, Volhardt of Germany, Wagner-Jauregg, and Eppinger of Austria, Michaux of Switzerland, Bessemans of Belgium, and Danielopolu of Roumania.

Abstracts of the papers to be read are to be published in the volume of the transactions in English, German, and French.

Information regarding this conference may be secured from the general secretary, Dr. William Bierman, 471 Park Avenue, New York City.

Sight-Saving Classes.—The National Society for the Prevention of Blindness has announced that courses for the training of teachers and supervisors of sight-saving classes will be offered at the 1936 summer sessions of:

University of California at Los Angeles, West Los Angeles, June 27 to August 7. Miss Frances Blend, who will be director of the course, is principal of sight-saving classes, Los Angeles City Schools.

University of Cincinnati, Cincinnati, Ohio, June 22 to July 28. Miss Estella Lawes, who will be director of the course, is director of the department of sight conservation, Cincinnati public schools.

State Normal School, Oswego, New York, June 29 to August 7. Miss Mattie M. Carter, who will be director of the course, is state supervisor of sight-saving classes, New York State Education Department. (Course to be given in Syracuse.)

Teachers' College, Columbia University, New York, July 7 to August 14. Mrs. Winifred Hathaway, who will be director of the course, is associate director of the National Society for the Prevention of Blindness.

Details regarding the courses may be obtained from the university or college, or from the director in charge of the course.

California Cities Win Health Awards.—Oakland won first award in cities of between 250,000 and 500,000 population in the 1935 Inter-Chamber City Health Conservation Contest conducted by the United States Chamber of Commerce in coöperation with the American Public Health Association. A special award was granted to Palo Alto, which had won first place in the contest twice before and which maintained the previous high standards of health achievement among cities of its population classification in 1935. Honorable mention among cities of 50,000 to 100,000 population was awarded to Pasadena and Sacramento, and among cities between 20,000 and 50,000 population honorable mention was awarded to Santa Barbara.

In this contest New York State won eight awards and California five. Four prizes each went to Connecticut, New Jersey, and Michigan. Massachusetts and Minnesota received three awards each. Two awards went to Pennsylvania. One award each was given to Florida, Hawaii, Illinois, Maryland, North Carolina, Oklahoma, Texas, Washington, and Wisconsin.

This contest,which is open to cities anywhere in the country, is for the purpose of determining which cities of various populations are conducting the most effective community public health programs in efforts to prevent premature deaths and those economic losses which may be due to unnecessary illness.

In announcing the results of the contest the American Public Health Association makes the following comment:

"Of the first place winners, New York received two; and one each went to California, Massachusetts, Michigan, and Minnesota. The fact that New York and California won so many awards is probably due not only to the fact that they both have splendid examples of good local health services, but also to the very active support and help of the state departments of health in these states.

"Competing cities are judged on the basis of the availability and use of safe water supplies, the adequacy of sewage disposal, the extent to which children are protected against such diseases as diphtheria and smallpox, the number of expectant mothers who receive proper prenatal care, the number of babies who are being kept well through adequate medical supervision, the safety and purity of the milk supply, the use of effective measures for the control and prevention of such diseases as tuberculosis and venereal diseases and the extent to which the physicians and dentists are practicing preventive medicine.

"It is very gratifying to find that the death rates are declining more rapidly in the cities participating in the contest than in the country as a whole. This may well reflect the greater progress made in all health matters in these cities.

"In 1935 there were 234 cities in the contest whose populations totaled over 23,000,000, more than one-quarter of the total urban population of this country. Forty-five states, the Islands of Hawaii, and Alaska were represented."

Indigent Ill Cost Heavy — Los Angeles County Spends Million Per Year on Tuberculosis Outside Institutions. — Approximately $1,000,000 is being spent annually by Los Angeles County in the care of tuberculous indigents who are not in county-owned institutions but are the legal responsibility of the County Charities Department, according to records on file in the offices of the department.

The tuberculous indigents are in addition to 970 patients in Olive View Sanatorium, the capacity of that institution, and 290 in the six tuberculosis wards of the General Hospital, which have a normal capacity of 233.

The $1,000,000 is divided into three parts as follows:

Approximately $480,000 for the annual cost of maintaining 870 patients in twenty-five privately owned rest homes.

Another $405,000 is the estimated amount that will be needed this fiscal year as the total relief budgets for more than 1,600 cases confined in their own homes.

The balance of $60,000 is for the medical care of this latter group.

Death of W. W. Beckett, President of California Medical Association in 1909. — The Los Angeles *Examiner*, in its issue of June 4, 1936, printed the following:

Death Calls Doctor Beckett

Medical Director Emeritus of Insurance Company Had Active Career

Dr. Wilbur Wesley Beckett, 79 years of age, leader of Los Angeles in the medical field and vice-president and medical director emeritus of the Pacific Mutual Life Insurance Company, died yesterday after a one-day illness.

Only last Sunday [May 31] Doctor Beckett, amid a group of friends and relatives, celebrated his birthday at his home at 2218 South Harvard Boulevard. Tuesday evening he suffered an apoplectic stroke.

Doctor Beckett came to California with his parents, who had crossed the country in a covered wagon in 1852, to Forest Grove, Oregon.

Doctor Beckett was graduated from the medical department of the University of Southern California in 1888, being a member of the institution's first graduating class. He took a postgraduate course in New York. Then he began his practice here, and in 1901 he entered the life insurance field.

He maintained his contact with the Southern California medical college, being dean emeritus of the institution and a trustee of the University. He was a past president of the California Medical Association and was a member of numerous clubs and organizations.

Doctor Beckett leaves two sons, Dr. Wilbur Archer Beckett and Francis Haynes Beckett; a niece, Miss Zella Keim, who has been living with the physician since the death of Mrs. Beckett six years ago, and two sisters, Mrs. Pernelia Keim of Glendale and Mrs. Elizabeth Phillips of Oakland.

Aid of Insects and Molds Shown to Doctors at American Medical Association Meeting.—Insects known to infest man, insects that heal certain human ailments, and molds that cut the cost of making medicines were on display by entomologists and chemists of the United States Department of Agriculture at the meeting of the American Medical Association (May 11-15) at Kansas City, Missouri.

Entomologists of the department prepared exhibits to show the part played by several flies in causing myiasis among human beings. Maggots of several species of flies—entering the body with food or drink—remain in the intestinal tract, causing severe abdominal pains, nausea, and headaches. The most common producers of intestinal myiasis are flesh flies, the rat-tailed maggot, the little house fly, and the latrine fly.

Where abundant, the nose bot-fly—normally parasitic in the head sinuses of sheep and goats—sometimes injures, or even blinds, people it happens to fly against. It deposits its maggots in the eyes of its victims.

In the North, Northwest, and East, children sometimes are infested with larvae of parasitic flies, which burrow into the skin, producing boil-like eruptions. Recovery is rapid with the removal of the maggots, unless a secondary infection develops.

Small first-stage larvae of horse bot-flies cause a peculiar form of dermatitis in man, seemingly most common in the north central states. Reddish, sinuous wheals, about one-eighth inch wide—the mark of larval movement beneath the skin—usually appear on the forearms. Physicians cut out these larvae or kill them by freezing a small area of the skin with ethylene chlorid or carbon dioxid "snow."

Larvae of ox warble flies occasionally attack man. Before breaking the skin, these larvae often move about through the body, with the accompaniment of paralytic and other grave symptoms.

Man is subject to attack also by screw-worms—the larvae of the parasitic blowfly that is a serious livestock pest in the South.

Following the use of maggots in the treatment of chronic osteomyelitis, entomologists of the Department of Agriculture have been studying how maggots produce their remarkable healing effects. They have found that the maggots excrete a substance called allantoin, a powerful healing agent.

The exhibit will describe this substance which has much the same healing effect as the maggots and is now substituted for the maggots themselves. At first isolated from maggot excretions, allantoin is now produced chemically from other sources.

Some of the results of putting molds to work to make various chemicals and the way it is done form part of the department's display. By the action of molds, corn sugar has been made to yield four substances used in medicine or in physiologic research—calcium gluconate, kojic acid, calcium d-lactate, and citric acid. Effective manufacturing methods developed by department chemists several years ago are now used by the industry. These improved methods are largely responsible for reducing the price of calcium gluconate—extensively used in calcium therapy—from $150 to 50 cents a pound.

How to determine the presence of selenium in soils and vegetation and the effect of seleniferous vegetation on animals are shown in another exhibit.

The department also sent to the meeting samples of citrus fruit juices, apple concentrate, concentrated grapefruit juice, and apple, date, and pear sirups made by a process that insures indefinite retention of fresh flavors and nutritive properties.

LETTERS

Concerning evaluation of membership.

San Bernardino, California.
May 2, 1936.

My dear Doctor Warnshuis:

This will acknowledge receipt of my membership certificate in the California Medical Association for the year 1936.

This membership means much to me, and calls to my mind the pleasure I have had in associating with my fellow doctors in the more than fifty years that have elapsed since my admission to practice here in California. From November 11, 1885, to 1936 is a long time, and it has seen wonderful development in our profession. May the coming fifty years be as rich as have the last fifty, and may the profession continue to receive the benefit and inspiration from the Association that I have received during my many years of membership.

547 "D" Street.

Sincerely,
M. Antoinette Bennette, M. D.

Concerning date of organization of the Alameda County Medical Association.

Oakland, California.
May 18, 1936.

To the Editor: — I am very much interested in the article, "The Lure of Medical History," in the California and Western Medicine for April, 1936, but may I direct attention to the error in the footnote on page 295 that the Alameda County Medical Association was organized early in 1871?

The Alameda County Medical Association was organized on August 25, 1860, and reorganized on October 18, 1869. I am the county society historian and have all records covering the organization and reorganization from those dates to the present.

I have done a great deal of work on the history of our association and if you have space to spare some time, I would like to submit something for your approval and publication.

Dr. Henry Gibbons was president in 1860 and Dr. Thomas H. Pinkerton in 1869, both later serving as presidents of the California Medical Association.

426 Seventeenth Street.

Cordially yours,
Frank R. Makinson, M. D.

Concerning mussel quarantine.

State of California
Department of Public Health
Sacramento

Subject: Mussel quarantine order.

To Health Officers:

A quarantine of all mussels from the ocean shore of California from the southern boundary of Ventura County north to the California-Oregon boundary, with the exception of the Bay of San Francisco, is hereby established. All health officers and food inspectors are hereby instructed, until further notice, to enforce the provisions of this quarantine and to prohibit the taking, sale, or offering for sale, mussels gathered in the district specified.

Said action is taken for the preservation of the public health.

W. M. Dickie, M. D.
Director of Public Health.

Effective May 19, 1936.

SPECIAL ARTICLES

CALIFORNIA SUPREME COURT'S OPINION ON THE GIVING OF ANESTHETICS BY NURSES*

L. A. No. 15162. In Bank. May 18, 1936

William V. Chalmers-Francis, William Dewey Wightman, George P. Waller, Jr., and Anesthesia Section of the Los Angeles County Medical Association (a Corporation), Plaintiffs; William V. Chalmers-Francis and George P. Waller, Jr., Plaintiffs and Appellants, vs. Dagmar A. Nelson and St. Vincent's Hospital (a Corporation), Defendants and Respondents.

Los Angeles County—Allen B. Campbell, Judge.

For Appellants—Le Roy Anderson, Frank L. Kostlan, Hartley F. Peart; Howard Hassard, of Counsel.

For Respondents—Mott, Vallee & Grant; John G. Mott, Paul Vallee.

Amicus Curiae for National Association of Nurse Anesthetists—Kenneth H. Gould.

Two practicing physicians and surgeons, on behalf of themselves and all other doctors, brought this injunction proceeding to restrain the defendant Nelson, a licensed and registered nurse employed by the defendant hospital, from administering general anesthetics in connection with operations. Such practice by the defendant is asserted to constitute the illegal practice of medicine, in violation of the Medical Practice Act. Judgment went for the defendants, and plaintiffs have appealed.

Appellants' arguments are directed to the proposition that defendants are illegally practicing medicine. Respondents contend that the Medical Practice Act is a penal statute, the violation of which will not be enjoined in the absence of a nuisance resulting therefrom. They cite and largely rely upon the recent case of *People* vs. *Steele*, 4 Cal. App. (2d) 206, 40 Pac. (2d) 959, 41 Pac. (2d) 946 (hearing denied in this court), in which it was held that a mere violation of the Medical Practice Act does not constitute a nuisance warranting the issuance of an injunction in the absence of some showing that such asserted illegal practice of medicine is so conducted and carried on as to be injurious to public health, and therefore a nuisance. They overlook, however, the opinion of the District Court filed in denying a rehearing in the case, wherein that court, in distinguishing certain cases cited on petition for rehearing, declared that "In those cases, holders of licenses to practice a profession were allowed to enjoin unlicensed defendants from practicing the same profession in competition with them. The cases are not in point on the question of the right of the state to enjoin such unlicensed practice." Appellants claim this language would seem to warrant the present type of action. Whether this be so or not is immaterial in this case. The judgment must be affirmed on the merits of the question at issue.

The findings, which are amply supported by the testimony in this case, show conclusively that everything which was done by the nurse, Dagmar A. Nelson, in the present instance, and by nurses generally, in the administration of anesthetics, was and is done under the immediate direction and supervision of the operating surgeon and his assistants. Such method seems to be the uniform practice in operating rooms. There was much testimony as to the recognized practice of permitting nurses to administer anesthetics and hypodermics. One of the plaintiffs' witnesses testified to what seems to be the established and uniformly accepted practice and procedure followed by surgeons and nurses, and that is that it is not diagnosing nor prescribing by the nurses within the meaning of the Medical Practice Act. We are led further to accept this practice and procedure as established when we consider the evidence of the many surgeons who supported the contention of the defendant nurse, and whose qualifications to testify concerning the practice of medicine in this community and elsewhere were established beyond dispute. That such practice is in accord with the generally accepted rule is borne out by the decided cases. (*Frank* vs. *South*, 175 Ky. 416, 194 S. W. 375; *Underwood* vs. *Scott*, 43 Kan. 714, 23 Pac. 942.) While these two cases construe provisions of statute law specifically relating to the practices and duties of registered nurses, they are in agreement with the definitely established rule relating to the subject. (*Frank* vs. *South*, supra; *In re Carpenter's Estate*, 196 Mich. 561, 162 N. W. 963.)

Aside from the proposition that nurses in the surgery during the preparation for and progress of an operation are not diagnosing or prescribing within the meaning of the Medical Practice Act, it is the legally established rule that they are but carrying out the orders of the physicians to whose authority they are subject. The surgeon has the power, and therefore the duty, to direct the nurse and her actions during the operation. (*Armstrong* vs. *Wallace*, 8 Cal. App. [2d] 429, 439, 47 Pac. [2d] 740; *Schloendorff* vs. *Society of New York Hospital*, 211 N. Y. 125, 105 N. E. 92.)

The judgment is affirmed. Waste, C. J.

We concur:
Conrey, J.
Curtis, J.
Langdon, J.
Thompson, J.

SAN DIEGO PRESS COMMENTS ON THE C. M. A. 1936 ANNUAL SESSION*

(From the San Diego Evening Tribune, May 25, 1936)

Urges War on Medical Control By State

Organized medicine was warned by Dr. Robert A. Peers of Colfax, California, to "wake up and be on its toes to protect the future of the profession against isms that threaten to undermine the splendid service built up by physicians and surgeons of the country." Peers' address, opening the formal sessions of the sixty-fifth annual convention of the California Medical Association today at Hotel Del Coronado, was heard by more than two thousand members of state medical societies.

"We are now confronted with a menacing situation—an attempt to regiment this great profession by having the government take control of the practice of medicine," said Peers. "Thinking men in and out of our profession believe this to be a grave mistake. We are just beginning to take the offensive, with an ever-growing public opinion supporting us.

"It is not enough for us to be just good physicians, good citizens, or merely observe our civic obligations in matters of public health. We must maintain eternal vigilance to guard the integrity of the profession against the deluded ideas of those who wish to rob it of one of its greatest assets—the individual initiative under private practice. which has made the medical profession of the United States outstanding in the world's annals. . . .

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* See also editorial comment on page 461.

* Official minutes of the House of Delegates and Council meetings of the Coronado annual session will appear in the July issue.

* * *

Methods for conducting modern medicine's battle against cancer were discussed yesterday in group meetings under auspices of the Cancer Commission. Study of hundreds of cases, coöperation of the state's specialists in every branch of medicine and research failed to develop any new methods of treatment in the last year, the Commission was told.

Summarizing work of the group, Dr. Charles A. Dukes, chairman, San Francisco, said that dissemination of information to the public so that early signs of cancer could be detected, was considered as most important, as it has been found that a high percentage of the cases could be cured if surgery were employed soon enough.

Methods for making an early diagnosis of cancer, claimed to be the most powerful weapon in the hands of doctors now in combating the disease, will be outlined by Dukes in an address at the Exposition at 2 p. m. tomorrow in observance of "California Medical Association Day." Dukes will be one of several speakers on a program at the organ amphitheater.

With Peers presiding, the clinical pathological conference, attended by the state's leading specialists, opened at Balboa Park today. Members of Standing and Special Committees were to meet with chairmen at 2 p. m. to formulate plans for extensive sessions as outlined in the program. Auxiliary registration was to be held on the sun porch at Hotel Del Coronado at 3 p. m., and an Auxiliary reception will be held at six o'clock this evening. Tomorrow's program starts with a general welcome by Dr. Benjamin F. Eager, San Diego, and Captain F. E. Porter, naval hospital.

(From the San Diego Evening Tribune, May 25, 1936)

Chest Surgery Given Praise at Medical Session Here as Offering Tuberculosis Hope

Tuberculosis of the lungs is still one of the most common causes of death, Dr. Jacob J. Singer, associate professor of clinical medicine, Washington University School of Medicine, St. Louis, Missouri, told the general session of the California Medical Association at its annual meeting in Hotel Del Coronado today.

Tuberculosis still takes the greatest toll of life between the ages of twenty and forty years, Singer, who is a national authority on the disease, told the doctors.

Chest surgery offers the latest hope in the fight against the disease, he said. He told of methods by which infected lungs may be given "local rest," in addition to the old methods of rest treatment for patients. Surgeons may now give an infected lung or part of a lung rest by various methods of compression in which the infected organ is collapsed by injection of air into the walls, or by other means, he said.

Singer declared that these methods, developed during the past twenty-five years, constitute the greatest step forward in the fight against the disease, particularly among patients who otherwise would die.

* * *

Medical science is progressing in its fight against cancer, Dr. Charles A. Dukes of Oakland, chairman of the Cancer Commission of the California Medical Association, said today.

"We still must admit that the cause of the disease is a mystery," he explained, "but today the situation, with respect to treatment of the disease, is greatly improved."

Even in advanced cases, 25 per cent can be "arrested" now by use of the x-ray, radium, or surgery, he explained, and in the beginning stages, actual cure may be expected in 95 per cent.

"Probably the most significant improvement," Dukes commented, "is the general disposition on the part of the medical men interested in cancer to treat it as a group problem. That is, they are beginning to organize cancer clinics—to bring the pathologist, radiologist, surgeon, and other specialists together to consider a case—in the larger hospitals."

* * *

Physicians and the public cannot afford to rest on their oars now in the war against tuberculosis because of the success in checking the disease during past years, Dr. William C. Voorsanger of San Francisco counsels. . . .

While some authorities believe the reduction in deaths from tuberculosis will continue for at least another ten years, others are not certain, he explained.

"In records of twenty-nine states, ten showed an upswing last year," he said. "Also, the per cent of reduction last year was the lowest in ten years." . . .

(From the San Diego Sun, May 25, 1936)

Physicians Scoff At Claim Anesthetics Harmful In Births

California Doctors Back Pain-Easing in Talks At Convention

California physicians gave their answer today to a suggestion made before the American Medical Association that mothers give birth to babies without the aid of anesthetics.

Their emphatic retort:

"Bosh! Impossible! Ridiculous!"

New Ideas Pooled

The California doctors, assembled in their sixty-fifth annual convention at Coronado, showed their complete contempt for any such suggestion by devoting this afternoon to clinical discussions of latest methods in administering anesthetics to obstetrical patients.

Peril to Mothers

Meanwhile. Dr. E. N. Ewer of Berkeley, head of the obstetrical clinic of the Alameda County Hospital, declared:

"California physicians are 100 per cent opposed to any plan under which mothers would have babies without the aid of drugs; many mothers could not live through such an ordeal."

Dr. Gertrude Nielson of Oklahoma City told the national group of physicians in Kansas City recently that "the birth of a child should be a vital experience and a memory not to be taken from a mother by the amnesia of 'twilight sleep' or any other drugs."

Physicians here today admitted quite freely that the so-called "twilight sleep" had, in a measure, proved a failure.

But, as Doctor Ewer said, "There are many other efficient agents by which pain can be reduced or eliminated without leaving any appreciable trace of harm in either the mother or baby."

The physicians were stirred as well by the statement of Dr. Rudolph W. Holmes of Chicago, generally credited with introducing "twilight sleep" to America, in which he asserted recently, "I am responsible for bringing this method to the United States: I wish to God I never had."

Some two million babies will be born throughout the United States in 1936, Doctor Ewer disclosed, and it is the mothers of these babies who "look to us to not alone alleviate their pain, but to do it in such a manner so not to harm their children. Medicine, I believe, is accomplishing this."

(From the San Diego Sun, May 25, 1936)

Success Revealed in New Attack on Tuberculosis

"Resting-Lung" Aid Described At Conclave

A new hope for hundreds of thousands of tuberculous sufferers throughout the United States was detailed in a report to the sixty-fifth assemblage of the California Medical Association in convention in Hotel Del Coronado today.

Heretofore Dr. Jacob J. Singer of Washington University School of Medicine in St. Louis, told the physicians rest was medicine's chief answer to the ravages of tuberculosis.

Only Partial Rest

"But," he pointed out, "rest of the body did not mean rest of the lungs."

They continue active, breathing many times each minute.

Now, with new apparatus perfected by scientists, it is possible to "collapse" a lung, or the diseased portion of that lung, so it, too, may "completely rest."

Several Types

Some five or six separate forms of pneumothorax, this new method of collapsing a lung, have been tested over the past few years by Doctor Singer and his associates, and it was the results of those tests which he today outlined to the California doctors.

Of 759 cases so treated in St. Louis, cases which were in the majority far advanced, fifty-one were completely cured, he reported. Arrest of further development which tuberculous patients recognize as a stop-gap in their march to death, was accomplished for 336. Others were partially cured; 240 died.

Two Per Cent Afflicted

What such progress means to medicine in America might easily be gathered, it was pointed out, when physicians estimate two per cent of our 120,000,000 people suffer from that dread disease.

Pneumothorax is not new, Doctor Singer added, but the development of instruments to penetrate the lungs and effect collapse is new. Doctor Singer perfected such an instrument, which the physicians today examined minutely.

Important Advance

Doctor Singer's progress in pneumothorax was characterized as "the brightest ray in the dark history of tuberculosis." Not only can they collapse a lung, but such collapse, which prevents air circulating over a diseased portion, can be centered over such diseased part.

Thus, to a sufferer with the disease in both lungs, sufficient collapse may be accomplished in the two compartments of the body to force a rest of the lungs, and yet, at the same time, permit breathing to continue.

"Patients otherwise doomed to die have new hope," Doctor Singer declared. "Our research has convinced us of the efficacy of this new method; there is new hope for the tuberculous."

(From the San Diego Union, May 25, 1936)

Medical Convention Highlights

Woman's Auxiliary members are celebrating the seventh anniversary of the founding of their organization at the meeting place where the Auxiliary was conceived.

"I served as the organization chairman of the Auxiliary when it was founded in Hotel Del Coronado seven years ago," Mrs. Fred Gundrum, Sacramento, recalled yesterday. "There were only a few of us who met in the Crown Room, at the suggestion of the Association president, to formulate the aims and ideals that still motivate the organization."

The Auxiliary functions both as a social organization and an instrument of public education. Main part of its work is coöperation with public schools and other organizations in promoting public health movements.

* * *

State Medical Board

Reorganization of investigative departments of the State Board of Medical Examiners because of collapse of charges in the recent campaign against a coast-wide illegal operation "syndicate," was announced yesterday by Dr. William R. Molony, Sr., board president, on arrival at Coronado to attend the sixty-fifth annual convention of the California Medical Association.

"The reorganization work is under way," said Doctor Molony. "We have asked Civil Service officials for a list of available, qualified investigators and as soon as the list is completed from examination results, we are going to redouble our efforts to halt operation of the syndicate."

Officials of the Board of Examiners recently authorized statements concerning the "syndicate" allegedly operating in all the large coast cities. Prosecution in Seattle failed and expected arrests in California did not materialize. Doctor Molony indicated the board had considerable additional information and was planning action as soon as reorganization made it possible.

(From the San Diego Union, May 26, 1936)

Fear, Sex, Discontent, Are Causes of Drunkenness, Physicians Told

If your husband is a drunkard, his home life or his occupation are inadequate or he is sexually frustrated.

If your wife is a drunkard, she fears loss of her husband or home or financial insecurity.

These reasons for habitual drunkenness were outlined yesterday in a paper presented at Coronado by Dr. Harry H. Wilson, youthful Los Angeles physician, as conclusions reached after examinations of many persons jailed in Los Angeles.

"Present depressive treatments and so-called cures for drunkenness are about as effective as spanking a baby," he said. "Alcohol is only a substitute in the seeking of relief by a maladjusted personality. The cure is in seeking the psycho-analytical readjustment of the unbalanced person."

The paper was read before the General Medicine Section of the medical convention at which Dr. Fletcher D. Taylor acted as chairman.

* * *

Doctors to Tell of New Surgery in Tuberculosis

Details of recent surgical methods developed in the treatment of tuberculosis, which yesterday occupied the attention of doctors attending the sixty-fifth annual California Medical Association convention, will be relayed to the public today at the Exposition.

The occasion will be the celebration of a day dedicated to the Association, and the address on tuberculosis will be delivered by Dr. Carl Howson of Los Angeles. He will speak at 3 p. m. at the organ amphitheater.

Another feature on the program, which offers an opportunity for public attendance at lectures generally open only to professional gatherings, will be an address by Dr. Charles A. Dukes of Oakland, chairman of the State Cancer Commission. Doctor Dukes will outline work of the Commission and steps being taken in the constant fight against cancer.

(From the San Diego Evening Tribune, May 26, 1936)

Fight on State Mapped to Keep Medical Practice Control; Insurance Topic

Meeting in secret session, members of the Council of the sixty-fifth annual convention of the California Medical Association today at Hotel Del Coronado formulated a program that calls for an "unremitting fight on any attempt of the state or any of its political subdivisions to gain control of private medical practice and to open county hospitals to those able to pay for private services."

Delegates and Families at Exposition

There were no Association sessions this afternoon. Delegates and their families planned to visit the Exposition.

Physicians and surgeons feel that the measure before the voters is "ruinous to the medical profession" and "a political weapon readily within reach of those who desire to use it."

Indications of the extent of the campaign to be waged against the measure came late yesterday when Dr. T. Kelly transmitted to the delegates a request of the Council urging "the Association to use all of our power in opposing this movement."

He was followed by Alfred Sieman, Bakersfield attorney, who recently completed handling of litigation on county hospital policies for the Association, who bitterly attacked the measure from a political standpoint.

"This measure, for which petitions are being circulated in an effort to get it placed on the November ballot, provides a means by which city councils and boards of supervisors may embark into a field of hospitalization and impose taxation for its cost.

"You will find that it provides a means by which votes can be purchased and voters bribed with public funds. It would soon drive out private enterprise now engaged in hospital work and will soon create a condition through which ability to obtain treatment will hinge on political favor."

(Editorial from San Diego Union, May 27, 1936)

Doctors Must Choose

We share the fear expressed by Attorney Sieman at Coronado yesterday that opening county hospitals to pay patients will invite the usual abuses of political control of business. But we do not believe that this particular blunder can be prevented by talk.

It rests with the medical profession, after all, to stop this step toward state medicine. Through their constant association with hospitals, public and private, they are in the best position to say where costs can be reduced without sacrificing the quality of hospital service.

The strength of the demand for state medicine derives chiefly from the fact that medical costs frequently are beyond the means of patients who are entirely willing to pay to the limit of their ability. As long as this condition obtains the public is going to listen sympathetically to any proposal which promises to correct the situation.

Argument against "state medicine" will enlist enthusiastic support from doctors. But the public needs more than a phrase to realize the danger in the proposal. The medical profession can supply this added force by striking at the roots of the movement with a practical plan for bringing hospital and other medical costs within the reach of the average man.

As long as any hospital charges 25 cents for one pill given to a patient to whom 25 cents means much more than to the hospital, that institution is a solid argument for state medicine. The medical profession may explain to the public that it does not manage the business side of hospitals, but the public insists, with justice, upon holding the profession responsible.

In all friendliness we believe that the profession must choose between removing the underlying cause of the demand for state medicine—and surrendering to that demand.

(From the San Diego Union, May 27, 1936)

Doctors Warned Against Relying on Laboratories

Delegates Urged Not to Abandon Old Knowledge For Unproved Methods

Modern medicine's greatest field of advancement in the last ten years, the laboratory, was rapped soundly yesterday in the feature address of the second day of the sixty-fifth annual California Medical Association convention at Hotel Del Coronado.

Dr. Campbell P. Howard,* invited here to address the more than one thousand doctors on his findings as professor of medicine, McGill University Faculty of Medicine, Montreal, warned against placing too great reliance in "the comparatively untried developments of the modern laboratory."

In his novel presentation of cases reviewed from the first showing of symptoms until postmortem examination, he showed where apparently accepted laboratory truths had been responsible for the deaths in the cases cited.

"Laboratory work and the intricate machines developed to aid medical men are only the handmaidens to common-sense clinical medicine," he said. "Don't discard the common-sense knowledge accumulated over thousands of years for new, unproven methods developed in the last ten years."

He urged that doctors, however, take advantage of all the findings of laboratory experts and place them in their proper relationship to the physical examination and case history.

* * *

Session Opened By Auxiliary of Medicos' Group

The seventh annual convention of the Woman's Auxiliary to the California Medical Association formally was opened yesterday morning at the Coronado Yacht clubhouse.

Mrs. Thomas J. Clark of Oakland, president, spoke of her year's objective—visiting each Auxiliary of the state in furtherance of the purpose of the Auxiliary, which is to form a link between medical science and the public. Nearly all have been visited, she said.

The organization of five new counties was reported—San Francisco, Siskiyou, Fresno, Marin, and Lassen-Plumas.

Welcome was extended members of the convention by Mrs. Emil C. Black, president of the San Diego branch, and Mrs. Elliott G. Colby was introduced. The Reverend Walter John Sherman offered the invocation.

Election of new officers will be the highlight of this morning's business session, beginning at 9:30 at the Coronado Yacht Clubhouse. Reports will be given by the seventeen county presidents and councilors of the nine districts.

(From the San Diego Union, May 28, 1936)

Expert Testimony "Buyable," Doctor Says; Flays Courts

Expert medical testimony is a purchasable commodity.

Judges should be allowed to examine medical experts instead of having attorneys stage a battle of wits over them.

Enforcement of an existing section of the State Civil Code would end forever "abuses and absurdities" of present expert-testimony practice.

These statements yesterday, in a paper attacking California court procedure in medical questions, prepared by Dr. Harold D. Barnard, Los Angeles, and presented by Dr. George A. Tucker, Los Angeles, featured a meeting of the General Medicine Section of the California Medical Association convention at Hotel Del Coronado.

"Expert medical testimony is a purchasable commodity, subject to all of the distractions of conflicting opinion," it was stated. Medical experts, through their zeal to assist clients, may withhold certain information and may become advocates of the client rather than a matter-of-fact expert, under present systems.

"Judges should be given the authority to question expert medical witnesses directly without objection by attorneys rather than allow the attorneys' 'battle of wits' that now exists.

"Failing this, attempts should be made to have judges appoint unbiased and neutral experts, as now provided in Section 1871 of the Code of Civil Procedure. Strict enforcement of this section forever would.destroy the grounds on which critics have called expert medical testimony a racket."

TRUSTEES OF THE CALIFORNIA MEDICAL ASSOCIATION†

Articles of Incorporation

Know All Men by These Presents:

That we, the undersigned, all of whom are residents of the State of California and active members of the California Medical Association and councilors or other officers thereof, according to the provisions of the constitution of said Association, propose to form a nonprofit coöperative corporation, having no capital stock, under the laws of the State of California, and particularly as embodied in Titles I and XXII of Part IV, Division First of the Civil Code of the State of California, and the provisions of acts amendatory thereof and supplemental thereto; and for the purpose of such incorporation we hereby unite in and adopt the following articles of incorporation, to wit:

First: That the name of this corporation is Trustees Of The California Medical Association.

Second: That the purpose for which this corporation is formed is:

1. To promote the objects and aid in carrying out the purposes for which the California Medical Association was and is organized, namely, to promote the science and art of medicine, the protection of public health, and the betterment of the medical profession.

2. To receive, hold, own, enjoy, improve, use, convey in trust, mortgage, pledge, lien, hypothecate, lease, exchange, grant, sell, convey, or otherwise dispose of, moneys and other personal property and real property delivered, assigned, conveyed or transferred to it by or for the said California Medical Association.

3. To appoint such agents and officers as its business may require, and such appointed agents may be either persons or corporations; to admit duly qualified persons to membership in the corporation and to expel any member pursuant to the provisions of its by-laws; to forfeit the membership of any member for violation of any agreement between him and the corporation or his violation of its by-laws; to purchase, lease or otherwise acquire, hold, own and enjoy, to sell, lease, mortgage and otherwise encumber and dispose of any and all and every kind or kinds of real and personal property including stock in other corporations, also to carry on any and all operations necessary or convenient in connection with the transaction of any of its business; to borrow money, to mortgage or pledge any property, real or personal, owned or held by this corporation; to secure any contracts made by it or any bonds, debentures, promissory notes or other obligations by it issued or incurred or guaranteed.

4. And in aid and furtherance of the foregoing purposes:

(*a*) To acquire by operation of law, gift, devise, bequest, lease, purchase, or otherwise; to own, hold, improve, enjoy, use; to grant, bargain, sell and convey, exchange, or otherwise dispose of, mortgage, convey in trust, pledge, lien, hypothecate, lease, hire, and deal in, any and all kinds of property, both real and personal, lands, tenements, and hereditaments, and any and every interest therein, corporeal or incorporeal, personal property, furniture, fixtures, books, libraries, shares of stock of corporations, bonds, notes, securities, and any and all kinds of choses in action.

(*b*) To make, enter into, execute, deliver, receive, transfer and carry out contracts of every kind and character with any person, firm, association, club, or public or private or municipal corporation; to invest and reinvest surplus or other funds of this corporation in such securities as may be authorized by law for investment of the funds of savings banks in the State of California.

(*c*) To purchase or otherwise acquire, construct, erect, maintain, alter, repair, reconstruct, furnish, conduct, and carry on a home and meeting place and library for said California Medical Association, and to purchase or otherwise acquire, own, hold, improve, and use all kinds of property, real, personal, or mixed, necessary or proper to be used in connection therewith, and to hire, employ, and contract with persons, firms, or corporations, necessary or proper to maintain, operate, conduct and carry on the same.

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* Dr. Campbell P. Howard, professor of medicine at McGill University, was one of the guest speakers at the Coronado annual session. (See April issue of California and Western Medicine, page 301.) Press dispatches of June 3 announced his sudden death in Santa Monica on that day.

† See November, 1930, issue of California and Western Medicine, pages 829-836, for by-laws of the Corporation, and other information. The articles of incorporation are here reprinted for the information of members of the California Medical Association, in connection with the editorial comments printed in this issue on page 460.

(*d*) To purchase or otherwise acquire, own, hold, manage, conduct, print, publish, circulate and sell journals, magazines, pamphlets, books and bulletins concerning or relating to the art and science of medicine, the protection of public health and the betterment of the medical profession, and in support and aid of the purposes of the corporation; to purchase or otherwise acquire, hire, lease, use, conduct or operate, manage, mortgage, convey in trust, sell or otherwise dispose of printing presses, apparatus, machinery, tools, and devices for printing, engraving, lithographing, electrotyping, binding, and all equipment and appliances necessary or suitable to carry out the foregoing purposes.

(*e*) To do any and every act and thing necessary or incident to the exercise, accomplishment and fulfillment of the foregoing objects and purposes, and to exercise any and all other powers and rights permitted to corporations, organized under the above mentioned provisions of the laws of California. The enumeration of particular powers herein shall not be deemed to exclude by inference such legal powers as would be implied if no such expressed enumeration had been made.

Third: That the county in the State of California where the principal office of this corporation for the transaction of the business of the corporation is to be located is the city and county of San Francisco.

Fourth: That the number of directors of this corporation is seven (7), and that the names and residences of the directors who have been selected, and appointed, for the first year and until their successors shall have been elected and shall have accepted office are as follows:

Lyell C. Kinney, La Mesa, San Diego County.
J. B. Harris, Arcade Park, Sacramento County.
O. D. Hamlin, Oakland, Alameda County.
Edward M. Pallette, Los Angeles, Los Angeles County.
George H. Kress, Santa Monica, Los Angeles County.
Emma W. Pope, Berkeley, Alameda County.
T. Henshaw Kelly, San Francisco.

Fifth: That the voting power and property rights and interest of each member of the corporation shall be equal to that of every other member of the corporation. Each member of the corporation shall be entitled to one vote upon all propositions submitted to, and to one vote for each director to be elected by, the members. Cumulative voting is expressly prohibited. The corporation shall have power to admit new members, who are duly qualified as hereinafter provided, who shall be entitled to vote and to share in the property of the corporation with the old members but without any beneficial interest therein in accordance with the general rule in these articles provided.

Sixth: That this corporation shall have no capital stock, but shall be composed of members, each of whom shall be an active member in good standing and a councilor or other officer according to the provisions of the constitution, as now existing or as it may hereafter be amended, of the California Medical Association, a voluntary association, originally formed March 12, 1856, to promote the science and art of medicine, the protection of public health, and the betterment of the medical profession, and now having its offices and headquarters at Room 2004, Four Fifty Sutter Building, 450 Sutter Street, San Francisco, California. Every person who is an active member of the California Medical Association in good standing, while he is and remains a councilor or other such officer of said Association, shall be entitled to become and shall be, without other or any action or proceeding (and in accordance with this general rule), a member of this corporation upon the issuance to, and acceptance by, him of a certificate of membership and giving his assent in writing to the articles of incorporation and the by-laws of this corporation, and his compliance with, all the provisions thereof relating to admission to membership.

Seventh: (*a*) A roll of members shall be kept and certificates of membership shall be issued to each and every member. Issuance to and acceptance by a member of a certificate of membership of this corporation shall be conclusive evidence of the consent of the member to become a member of this corporation, and of his agreement to comply with and be governed by all the provisions of these articles of incorporation and the by-laws of this corporation.

(*b*) Neither membership in this corporation, nor any certificate evidencing the same, nor the interest of any member in this corporation, or any of the assets thereof, shall (*a*) be subject to execution, or become or be, an asset of the estate of any deceased member, or of any member who may become insolvent or bankrupt; (*b*) descend to or vest in the heirs, legatees or devisees of any member; or (*c*) be transferable or assignable in any form, either by the voluntary or involuntary act of any member, or by operation of law. In the event of the death, insolvency or bankruptcy of any member or of any such attempted transfer or assignment of membership or of any certificate evidencing the same, or of any interest of any member in this corporation, or any of the assets thereof, whether by the voluntary act of the member or otherwise, such membership, certificate and all interest of any such member in this corporation, and all assets thereof, shall be immediately canceled, revoked and terminated.

Eighth: This corporation is not organized and its business shall not be conducted or carried on for profit to itself, or for the profit of its members. All beneficial interest of each member in this corporation, and in and to all the assets thereof, shall be held by him for the use and benefit of the California Medical Association.

Ninth: In the event of the dissolution of this corporation all of its assets and property after payment and satisfaction and discharge of all claims and demands against, and liabilities of, the corporation, shall be paid over, distributed, conveyed and transferred to the nominee or nominees of said California Medical Association, acting by and through the Council, viz., the board of councilors thereof.

In witness whereof, we have hereunto set our hands and seals this first day of May, 1930.

O. D. Hamlin (Seal)
Lyell C. Kinney (Seal)
J. B. Harris (Seal)
T. Henshaw Kelly (Seal)
Emma W. Pope (Seal)
George H. Kress (Seal)
Mott H. Arnold (Seal)
William Duffield (Seal)
Fred R. DeLappe (Seal)
Alfred L. Phillips (Seal)
Robert A. Peers (Seal)
Henry S. Rogers (Seal)
Joseph Catton (Seal)
Edward M. Pallette (Seal)
George G. Hunter (Seal)
R. A. Cushman (Seal)
John H. Graves (Seal)
Edward N. Ewer (Seal)
Walter B. Coffey (Seal)
Gayle G. Moseley (Seal)

State of California
County of Monterey—ss.

On the first day of May, in the year one thousand nine hundred and thirty, before me, Frank C. Jakobs, a notary public in and for the County of Monterey, State of California, residing therein, duly commissioned and sworn, personally appeared

O. D. Hamlin
Lyell C. Kinney
J. B. Harris
T. Henshaw Kelly
Emma W. Pope
George H. Kress
Mott H. Arnold
William Duffield
Fred R. DeLappe
Alfred L. Phillips
Robert A. Peers
Henry S. Rogers
Joseph Catton
Edward M. Pallette
George G. Hunter
R. A. Cushman
John H. Graves
Edward N. Ewer

known to me to be the persons described in, whose names are subscribed to and who executed the within and annexed instrument, and acknowledged to me that they executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal, at my office in the County of Monterey, State of California, the day and year in this certificate first above written.

(Seal) Frank C. Jakobs,
Notary Public in and for the County of Monterey, State of California.

My commission expires February 17, 1933.

"FULL STEAM" OR CAUTION IN SOCIAL SECURITY

When the Committee on the Costs of Medical Care brought in its final report, *The Journal*[1] pointed out that the choice seemed to lie with the medical profession and the public as to whether or not changes in the nature of medical practice were to come by evolution or by revolution. In the years that have elapsed, the public seems wisely to have chosen to proceed cautiously and carefully rather than to order "full steam ahead." Nevertheless, proponents of socialized medicine continue to urge and to make propaganda for the revolution that the medical profession and the public want to avoid. Conspicuous among those who demand haste are Michael Davis, representing the Rosenwald Foundation; Nathan Sinai, who has at various times represented various groups, and Dr. Hugh Cabot, who seems mostly to represent himself.

In a recent discussion on the subject of social security, held in the Graduate School of Business Administration of Harvard University, these three proponents of speed again stated their points of view. Doctor Cabot did not hesitate to say that the medical profession does not seem to be able to fit itself into an economic age and that it should long since have realized that it must become a business and cease to be a profession. Mr. Sinai deplored the manner in which his plans for Michigan had been opposed and indicated his impression that the medical profession in this country is an obstructionist body. Mr. Davis, who has on previous occasions stated his belief that medicine proceeds on a bicycle while civilization proceeds in an airplane, again bemoaned the delay of the American medical profession in adopting some of the plans which he and his associates of the Rosenwald Foundation have been so busily pushing during the last four years. In the course of their discussions, these proponents of socialized medicine condemned the principles adopted by the House of Delegates of the American Medical Association at the Cleveland and subsequent sessions as being planned to delay rather than to hasten progress. Anyone familiar with the changes that have occurred, with the experiments that are now under way, and with the statements made by representatives of organized medicine during the past three years, will know that the allegations of these three propagandists are not warranted. The studies made by the Bureau of Medical Economics of the American Medical Association indicate that already many an ill-founded and unwarranted experiment in changing the nature of medical practice has failed and disappeared. As yet there is no scientific evidence to indicate that any one of the plans now in effect represents the ideal.

The substantial progress of medicine has been brought about by a system of trial, of test and experiment, which is itself responsible for the substantial character of the progress. There is no more reason why medicine should discard its scientific methods in performing social experiments than there is reason for discarding scientific methods and embarking on wishful thinking in the laboratory and faith-healing in the hospital. Reckless experimenters in the so-called social sciences may shout "full steam ahead!" The organization and structure of scientific medicine is more likely to be salvaged from the wreckage into which many of the other social and economic organizations are plunging by observing the caution which medical leaders know is imperative for a safe advance.—*Journal of the American Medical Association,* May 16, 1936.

MORTALITY FROM CERTAIN DISEASES AMONG CHILDREN UNDER FIFTEEN YEARS OF AGE IN CALIFORNIA

1906–1934

By Walter M. Dickie, M.D.
San Francisco

PART II*

During school age, deaths from whooping-cough are not common, and when they do occur are usually in the lower brackets of 5 to 14 age group. They are somewhat constant in numbers during the entire period studied, but because of the increase in population of this group, we find the rates decreasing from 2.7 per 100,000 in 1906-1909 to 0.6 per 100,000 group population in 1930-1934.

Mortality from Whooping Cough, 1906-1934

	Under 1 yr.		1-4 years		5-14 years	
Years	Number	Rate	Number	Rate	Number	Rate
1906-1909	380	258.1	234	41.4	36	2.7
1910-1914	618	284.6	435	51.5	49	2.5
1915-1919	519	205.9	346	33.9	31	1.3
1920-1924	814	274.2	478	38.6	58	1.9
1925-1929	876	249.2	510	34.0	44	1.1
1930-1934	545	136.3	305	17.7	27	0.6

DIPHTHERIA

During the twenty-nine years under study, deaths from diphtheria have decreased markedly in children under fifteen years of age. Death rates from this cause among this group have fallen from 55.9 to 10.1 or 82.0 per cent between the first and the last period studied, the largest reduction being among children 5 to 14 years of age. As in scarlet fever and whooping-cough, this reduction has been gradual and continuous with the exception of the years 1920-1924, when there was a rise above the previous years.

During 1906-1909, there are sixty-three children under one year of age who died, with a rate of 42.8 per 100,000 children in this class. This fluctuates, with a rise in 1920-1924 to 32.0 per 100,000 group population with ninety-five deaths and then falls to a low point during 1930-1934 of forty-eight deaths, or a rate of 12.0 per 100,000 group population.

The age group 1 to 4 contributes a large number of deaths to this disease. There are 558 deaths, with a corresponding group rate of 98.8 per 100,000 population in 1906-1909. The number falls and then rises to a high point of 1,107 deaths, although the rate does not rise above that of 1906-1909, but reaches 89.3 per 100,000 group population. Both numbers and rates then fall to 346 and 20.1, respectively, in 1930-1934. The percentage drop in rate from 1906-1909, when it is 42.8, to 12.0 per 100,000 population in 1930-1934, is the smallest of the three groups, being 72.0 per cent decrease.

The age group 5 to 14 exhibits the greatest percentage drop in rate of the three groups under study. In 1906-1909 there are 515 deaths, with a corresponding rate of 39.1. This rises in 1920-1924 to 1,569 deaths with a rate of 50.2, and then falls ten years later to 289 deaths with a rate of 6.3. This rate is 83.9 per cent lower than that of 1906-1909, and 87.4 per cent lower than the rate for the years 1920-1924. The decrease in rate in this age group is 79.7 per cent, falling from 98.8 per 100,000 population in 1906-1909 to 20.1 in 1930-1934.

Mortality from Diphtheria, 1906-1934

	Under 1 yr.		1-4 years		5-14 years	
Years	Number	Rate	Number	Rate	Number	Rate
1906-1909	63	42.8	558	98.8	516	39.1
1910-1914	47	21.6	463	54.8	406	20.6
1915-1919	63	25.0	564	55.2	537	21.9
1920-1924	95	32.0	1,107	89.3	1,569	50.2
1925-1929	57	16.2	567	37.8	545	13.7
1930-1934	48	12.0	346	20.1	289	6.3

DYSENTERY

Deaths from dysentery include all forms of dysentery, bacillary, amebic, and unspecified. These have not been segregated until recent years, although the group as a whole has been recognized.

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[1] The Committee on the Costs of Medical Care, editorial, J. A. M. A., 99:1950 (Dec. 3), 1932.

* Part I of this article was printed in the May issue of California and Western Medicine, beginning with page 454.

Children under one year of age are the most susceptible to this disease when mortality rates are considered. In 1906-1909 there are eleven deaths attributed to this disease with a rate of 7.5. This rises to a peak of 114 deaths during 1920-1924, with a corresponding rate of 47.5 and then drops to 104 deaths and a rate of 26.0 per 100,000 group population during 1930-1934.

The trend of deaths in children from 1 to 4 years of age follows that of age group under one year, although the rates are lower all the way through. The lowest number of deaths is recorded during 1906-1909, with fourteen and a rate of 2.5 per 100,000 population. This rises to a high point of ninety-nine deaths and a rate of 8.0 per 100,000 population in 1920-1924, then falls to eighty-seven deaths and a mortality rate of 5.0 per 100,000 group population during 1930-1934.

Ages 5 to 14 presents a somewhat different picture, although the number of deaths involved is small. During the four years of 1906-1909, there are four deaths from dysentery, with a rate of 0.3 per 100,000 group population. This rate remains stationary until 1920-1924, when it rises to a rate of 0.5 per 100,000 group population and sixteen deaths. After a drop during the next quinquennium, there is a further rise to a high of twenty-seven deaths and a mortality rate of 0.6 per 100,000 group population. The differences in rate throughout this age group during the period under observation are so small that they are probably not significant.

Mortality from Dysentery, 1906-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1906-1909	11	7.5	14	2.5	4	0.3
1910-1914	44	20.3	47	5.6	6	0.3
1915-1919	76	30.1	66	6.5	8	0.3
1920-1924	141	47.5	99	8.0	16	0.5
1925-1929	115	32.7	97	6.5	14	0.4
1930-1934	104	26.0	87	5.0	27	0.6

ACUTE ANTERIOR POLIOMYELITIS

Statistics on this disease are available only since 1921, so the study is limited to a period of fourteen years. For uniformity with other diseases studied, the four-year period comes first, followed by two five-year periods. All three age groups under fifteen years present the same picture, that of low number of deaths and rate, followed by a fairly large number of deaths and then receding almost to the same rate as in the initial period. Rates are about the same for infants under one year and children under four years, but are lower for those 5 to 14 years although the number of deaths is greater.

In 1921-1924 there are eight deaths in infants under one year, with a rate of 3.3 per 100,000 group population. This rises during 1925-1929 to thirty-four deaths, rate 9.7 per 100,000 group population, and then recedes to nineteen deaths, with a corresponding rate of 4.8 poliomyelitis deaths per 100,000 group population in 1930-1934.

Groups 1 to 4 present a similar picture with 46, 143, and 76 deaths, and corresponding rates of 4.5, 9.5, and 4.4 deaths per 100,000 group population during the period 1921-1924, 1925-1929, and 1930-1934, respectively.

Mortality from Acute Anterior Poliomyelitis (Infantile Paralysis) 1921-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1921-1924	8	3.3	46	4.5	57	2.2
1925-1929	34	9.7	143	9.5	215	5.4
1930-1934	19	4.8	176	4.4	120	2.6

Death rates from poliomyelitis are lower in the group 5 to 14 years than they are in the two younger groups, although the actual numbers of deaths exceed the sum of the deaths in these two groups. There are fifty-seven deaths, rate 2.2 per 100,000 group population in 1921-1925 followed by 215 deaths with a rate of 5.4 per 100,000 group population in 1925-1929 and a drop in 1930-1934 to 120 deaths, with a corresponding rate of 2.6 per 100,000 group population.

EPIDEMIC ENCEPHALITIS

(Encephalitis Lethargica) Sleeping Sickness

Statistics for this disease are available over a period of fourteen years only, as are those for acute anterior poliomyelitis (infantile paralysis) and meningococcic meningitis (epidemic or cerebrospinal meningitis). Differing from poliomyelitis there is a higher death rate among those children under one than there is in those from one to four years of age, while the rate distribution among the age groups is similar to that of epidemic poliomyelitis.

Beginning with seventeen deaths of infants under one year of age, we find a rate of 7.0 per 100,000 group population in 1921-1924. This recedes through sixteen deaths, rate 4.6 to one death and a rate of 0.2 per 100,000 group population 1930-1934.

Age group 1 to 14 exhibits a similar trend. There are thirty-seven deaths, with a rate of 3.6 per 100,000 group population in 1921-1924. This drops to thirty-three deaths, rate 2.2, and then goes to twenty-four deaths, 1.4 per 100,000 group population.

This story is repeated in age group 5 to 14 with similar numbers, but lower rates.

Mortality from Epidemic Encephalitis (Encepalitis Lethargica, Sleeping Sickness), 1921-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1921-1924	17	7.0	37	3.6	41	1.6
1925-1929	16	4.6	33	2.2	31	0.8
1930-1934	1	0.2	24	1.4	11	0.2

EPIDEMIC MENINGITIS

Death rates from this cause run higher in infants under one year of age than they do in either acute anterior poliomyelitis or lethargic encephalitis. The years 1921-1924 show thirty-four deaths with a rate of 41.1. This rises to sixty-eight deaths with 19.3 deaths per 100,000 group population in 1925-1929 and then falls slightly to sixty-seven deaths with corresponding rates of 16.8 deaths per 100,000 group population. Such a sustained death rate is somewhat surprising in this age group.

In the age group 1 to 4 years the death rate is much lower, although it follows the same trend. In 1921-1924 there are thirty-five deaths, giving a death rate of 3.5 per 100,000 group population. This rises to 118 deaths and 7.9 deaths per 100,000 group population during 1925-1929, and then falls to eighty deaths with a rate of 4.6 per 100,000 group population.

Age group 5 to 14 shows a slightly higher number of deaths in each period, but the rates are very low. In 1921-1924 there are forty-six deaths and a death rate of 1.8 per 100,000 group population. This rises to 151 deaths and a rate of 3.8 per 100,000 group population and then recedes to ninety-seven deaths, with a corresponding rate of 2.1 per 100,000 group population.

Mortality from Meningococcic Meningitis, 1921-1934

Years	Under 1 yr.		1-4 years		5-14 years	
	Number	Rate	Number	Rate	Number	Rate
1921-1924	34	14.1	35	3.5	46	1.8
1925-1929	68	19.3	118	7.9	151	3.8
1930-1934	67	16.8	80	4.6	97	2.1

TUBERCULOSIS

Tuberculosis is the greatest cause of deaths among the communicable diseases in children under fifteen years of age. During the period of 1930-1934, acute poliomyelitis, lethargic encephalitis and epidemic meningitis account for 495 deaths, while tuberculosis, with effects as appalling as those of these three diseases, causes 2,233 deaths in the same age group. It would seem that the reduction which has been accomplished has nearly wiped out this as a cause of death among children, but it is apparent that there are still more deaths from tuberculosis than there are from measles, whooping-cough and diphtheria combined during the same period, 1930-1934. To be sure, we have reduced the death rate from this disease in the age groups under fifteen, but it still stands as the most prolific cause of death among the communicable diseases. In 1906-1909 there are 1,676 deaths of children under fifteen years of age with a mortality rate of 82.5 per 100,000 group population, and this is changed to 2,233 deaths with a rate of 32.9 per 100,000 group population, or a reduction in the mortality rate of 60.1 per cent.

(To be concluded)

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. IX, No. 6, June, 1911

From Some Editorial Notes:

The American Medical Association Meeting.—Of course you have not forgotten that the American Medical Association is to meet this month in Los Angeles, beginning June 27. And also, of course, you have made your arrangements to attend the meeting. It promises to be larger than had been expected, for a number of parties and special trains are being made up from Eastern points to come out to the Coast and combine a vacation trip with attendance upon the sessions at Los Angeles. If you have not already made reservation of a room for yourself, you had better do so at once, as we learn that most of the larger hotels are already nearly, if not quite, fully reserved and the others are filling up rapidly. If you have any difficulty, write to the chairman of the Committee on Arrangements, Dr. H. Bert Ellis, Bradbury Block, Los Angeles, and the matter will be attended to promptly by the proper committee. A list of the hotels, with rates, and of the meeting places and headquarters was printed in the last issue of the *Journal*. . . .

* * *

The Annual Meeting.—The annual meeting of the State Society at Santa Barbara was, in every respect, a most successful one. The hotel was comfortable and the management did everything in their power to make our stay pleasant. The weather was perfect and the outings most enjoyable. The scientific program was very good indeed, which fact was sufficiently proved by the attendance at the various sessions and the discussions which the papers brought forth. The plan of having the Committee on Scientific Program retain its personnel, changing one member each year, will undoubtedly prove to be a wise change in our by-laws. Experience in getting up programs is half of the work; one soon learns what not to do and that is the most important thing.

* * *

Changes in Medical Law.—Legislatures are fearful and wonderful things; they keep one excited for months, they leave one dazed when they adjourn, and then, after one has had time to come back to normal and contemplate the result, he often finds some startling things have happened. In the last days of a legislature it is difficult to keep track of what passes and what does not; and then comes the added difficulty of finding out what the Governor has approved and what he has allowed to die a natural death. Two bills directly amending the medical law were passed by the last legislature and at the eleventh hour were signed by the Governor, for some reason or reasons that cannot be discovered. One bill, introduced by Hurd of Los Angeles, Senate Bill No. 875, in its original form contained a number of provisions the real import of which was to license almost any one who applied for a certificate to practice. This was beaten, but on reconsideration, Hurd amended everything out of the bill except one clause allowing the Governor to appoint the Board of Examiners without nominations from the various societies and associations which, under the former law, elected twice as many nominees as there were appointments to be made, and from these nominees the Governor had to make his appointments. At the time of writing, the Governor has not signified his selection of examiners. The other bill that passed was prepared by the attorney for the Board of Examiners and was intended to compel a licensed physician to practice under his own name and to make companies, and similar institutions, display in a conspicuous place the names of the licensed physicians employed by them to practice. It passed the

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† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

(Continued in Front Advertising Section, Page 14)

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"A resolution endorsing the Initiative petition, which would amend the State constitution to allow county hospitals to accept pay patients, was adopted by Palermo Grange yesterday." (Sacramento *Union*, May 8, 1936.)

"Indications today were that the County Board of Supervisors will submit to the voters of Sacramento County a charter amendment opening the Sacramento County Hospital to persons other than indigents. . . ." (Sacramento *Bee*, April 28, 1936.)

"An Assembly Interim Committee was informed today that a survey of more than 20,000 California families to determine the need of state health insurance will be completed in two months and presented to the legislature. The committee, headed by Thomas J. Cunningham of Los Angeles, concluded a two-day hearing here on the feasibility of state health insurance. Dr. Paul Dodd of the University of California at Los Angeles told the committee the California Medical Society and Federal Government are making a survey jointly. It covers family income, expenditures for medical and dental care, and any illnesses that did not receive treatment. A score of Southern California doctors testified before the committee. . . ." (United Press dispatch, dated Los Angeles, May 9, and printed in the Oakland *Tribune*, May 10, 1936.)

"Compulsory health insurance was described as dangerous by Glenn O. Stout, Sacramento, who yesterday appeared in Los Angeles before an Assembly Committee. Stout, representing the State Credit League, said the plan was a dangerous threat to fraternal groups, the Associated Press reported. . . ." (Sacramento *Union*, May 10, 1936.)

"The expert witness is steadily assuming greater importance in the field of medical and dental jurisprudence, Attorney Byron C. Hanna of Los Angeles told the members of the Glendale Bar Association, the Glendale Medical Association, and the Glendale Dental Society at their joint dinner meeting last night in Oakmont Club. . . . He predicted that the expert witness will bear an increasingly important part in the professions of medicine and dentistry in matters of litigation." . . . (Glendale *News Press*, April 15, 1936.)

Report relates that the People's Health League has been organized by certain naturopaths and chiropractors in Los Angeles, with Henry Gross, naturopath, president; W. D. Noland, licensed chiropractor, secretary; and Nephi Cottam, licensed chiropractor, trustee. It is said that in their advertising matter they referred to the "Education 1 Department," "Cosmopathic School," and "The Somopathic University." The records of the Board of Medical Examiners indicate that William D. Noland was on October 31, 1935, found guilty of two counts of violation of Section 15 of the Chiropractic Act ("News Items," January, 1936, p. 30). Nephi Cottam, D. C., claims to be the inventor of "craniopathy," said to be a sort of chiropractic adjustment, by which he claims to be able to manually move the bones of the skull.

Investigation reports relate that on April 29, in the Municipal Court of Los Angeles, James J. Connor,

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† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

(Continued in Front Advertising Section, Page 18)

If you would benefit FIRST from improvements . . .

Standardize on Baxter's Solutions in Vacoliters

BAXTER has introduced most of the technical advances which make modern intravenous therapy so safe and so convenient. Opening a new field, Baxter set the high standards of safety, convenience, and economy for ready-to-use solutions. And Baxter was . . .

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Powers and Duties of County Health Officers Extended. — The attention of health officers is drawn to Chapter 725, Acts of 1935, relative to amended sections of the Political Code pertaining to powers and duties of county health officers. Under the provisions of this law it is possible to establish public health service in many communities where such service is now lacking. The act reads as follows:

CHAPTER 725

An act to amend sections 4225 and 4225a of the Political Code, both relating to the powers and duties of county health officers.

[Approved by the Governor July 20, A. D. 1935]

The people of the State of California do enact as follows:

Section 1. Section 4225 of the Political Code is hereby amended to read as follows:

4225. The board of supervisors shall appoint in each county, a health officer, who shall be deemed an employee and not a county officer, and whose duty it shall be to enforce and observe in the unincorporated territory of his county, all orders and ordinances of the board of supervisors, pertaining to public health and sanitary matters, all orders, quarantine regulations, and rules prescribed by the State Board of Health, and all statutes relating to the public health and to vital statistics and, upon the council or other legislative body of any incorporated city or town or chartered city within such county consenting thereto by resolution or ordinance, it shall be the duty of said health officer to enforce and observe in such incorporated city or town or chartered city all orders, quarantine regulations and rules prescribed by the State Board of Health and all statutes relating to the public health and to vital statistics. Such resolution or ordinance must be passed and adopted and a certified copy thereof served on the clerk of the board of supervisors on or before the first day of March of any year and the services of such county health officer in such city or town shall commence on the first day of July next succeeding the giving of such notice, and shall continue indefinitely until and unless such council or other legislative body of such city or town or chartered city shall, by resolution or ordinance terminate same, in which event a certified copy of such resolution or ordinance shall be served on the clerk of the board of supervisors on or before the first day of March of any subsequent year, whereupon such services of such county health officer shall terminate on the first day of July immediately succeeding the giving of such notice. In the event of major disaster or other emergency, the council or other legislative body of any city or town or chartered city which has not so consented by resolution shall have the power to contract with the board of supervisors of the county within which such city is located for the performance by the health officer of any and all functions relating to public health.

He shall give to the duties of his office such time and attention as may be necessary to secure general supervision of all matters pertaining to the health and sanitary condition of the county, and when so required by the board of supervisors he shall give all of his time to such duties. He shall be a graduate of a medical college of good standing and repute, shall hold office for a term of one year, and shall receive for his services such sum as may be determined by the board of supervisors.

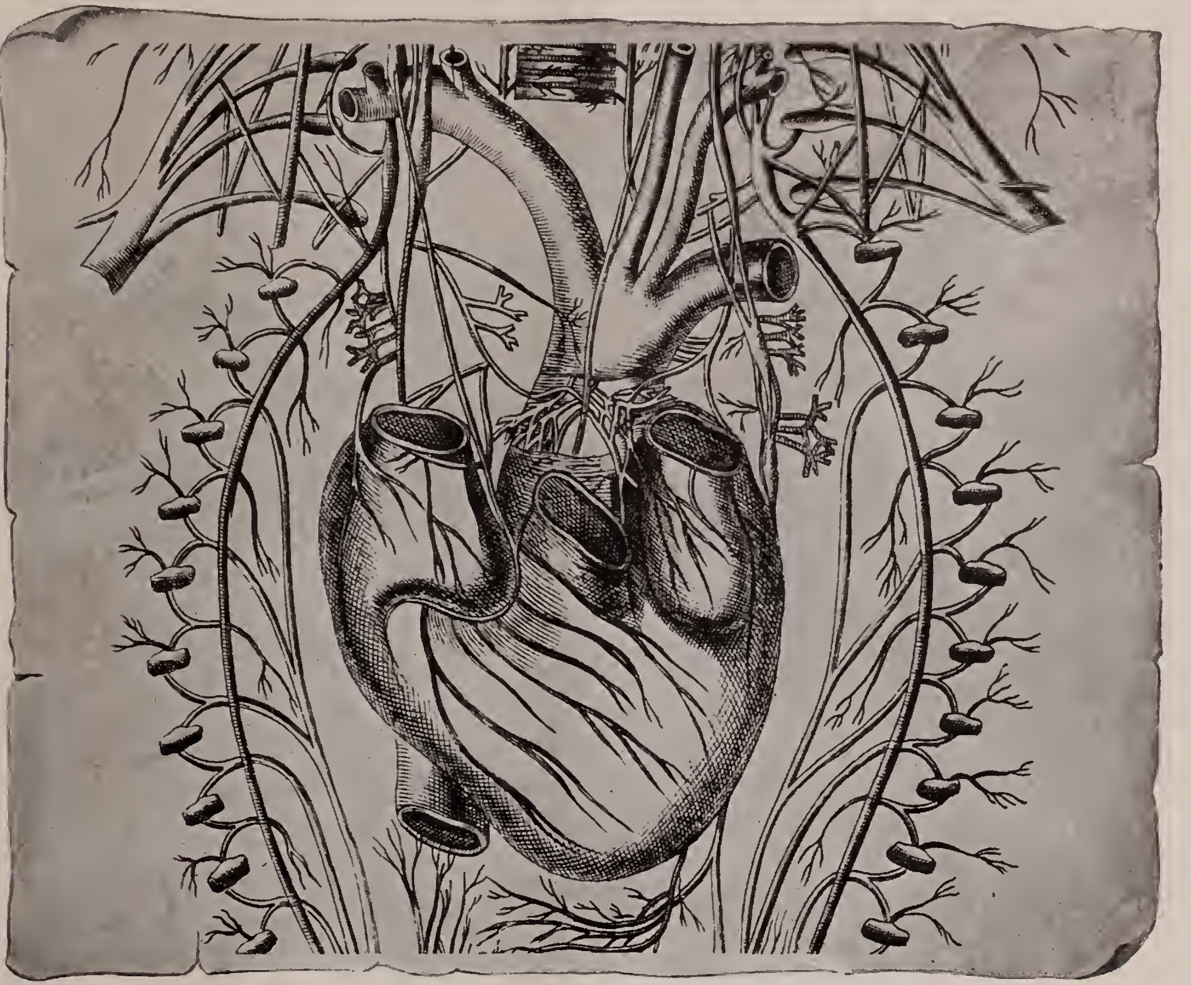
Immediately after the appointment of such health officer the board of supervisors shall notify the secretary of the State Board of Health of such appointment and the name and address of such appointee.

The board of supervisors shall adopt orders and ordinances necessary for the preservation of the public health in the unincorporated territory of the county, not in conflict with general laws, and provide for the payment of all expenses incurred in enforcing the same.

For any unincorporated town, when public necessity requires such action, the board of supervisors may appoint a special health officer who shall, in such town, under the supervision of the county health officer, exercise all necessary diligence in executing the ordinances, rules, and regulations of the board of supervisors or the State Board

(Continued on Page 36)

One of a series of advertisements prepared and published by PARKE, DAVIS & CO. in behalf of the medical profession. This "See Your Doctor" campaign is running in the *Saturday Evening Post* and other leading magazines.



The heart as represented in an anatomical drawing of the 18th Century.

That heart of yours . . .

WEIGHING only 8 to 12 ounces, that heart of yours must each day do an amount of work equivalent to lifting a man of 150 pounds one-and-a-quarter times the height of the Empire State Building!

It can never rest. On and on it must beat: 72 times each minute, 4320 times each hour, *37,843,200* times each year.

Its Herculean job is made still more difficult by the strain and accelerated pace of modern life. This, perhaps, is one of the reasons heart disease is increasing. Today, it leads all other causes of death—*one person in six, above the age of 40, dies of heart disease.*

That is an alarming figure. It makes the thoughtful person wonder, "What about *my* heart?" And the only person who can answer that question for you is your doctor.

The answer most people get is one that takes a load off their minds—"There isn't anything wrong." But if something *should* be wrong, your greatest security lies in knowing about it promptly. For the heart has remarkable properties of recuperation. It responds to treatment, if started in time, better than most organs in the body. Even people with badly crippled hearts often live happy, active lives after they have been taught what precautions they should observe.

Today physicians know more about the ills of the heart and ways of the heart than ever before. They are better equipped than ever before to treat and control heart disease—and to guard against it as well.

Shortness of breath—fluttering of the heart—numbness of the extremities—these are among the symptoms that suggest an *immediate* trip to the doctor's. But even without warning symptoms, many a wise man sees his doctor at regular intervals—far less "servicing" than he gives his car, yet obviously, infinitely more important.

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But times have changed, as well as cattle. Now, the therapeutic value of certain gland products is definitely established and each year adds to our knowledge in this important field of therapeutics.

To the physician prescribing gland products we urge specification of "Wilson," because it connotes a product made at the source of supply from fresh glands, processed promptly, with the aim of conserving maximum hormone activity, in a laboratory devoted exclusively to the endocrine field.

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Anti-Pyrexol is available through surgical supply houses and drug jobbers in 2-oz. tubes, 1-lb., 5-lb., 10-lb. tins. For technical information address Mona E. Bettin (M. D.), Pathological Laboratories, Roosevelt Building, Los Angeles, or:

Kip Corporation, Ltd.
919 E. Pico Street Los Angeles, Calif.

Not Advertised to Laity

(Continued from Page 34)

of Health, relating to health and sanitary matters. His term of office and compensation shall be fixed by the board of supervisors, and he shall receive as his compensation for services, unless in this title otherwise provided, not to exceed $100 in any one year.

The provisions of this section shall not apply to any county, or portion thereof, or any incorporated city or town, or chartered city included within any local health district organized in pursuance of the provisions of Chapter 571 of the Statutes of 1917.

The provisions of this section shall not apply to cities of the first and one-half class.

Sec. 2. Section 4225a of the Political Code is hereby amended to read as follows:

4225a. The board of supervisors of any county shall have power to contract with any incorporated city or town or chartered city within such county, and such incorporated city, town or chartered city therein, through its board of trustees, council or other legislative body, shall have power to contract with such county for the performance by health officers or other employees of county health departments of any or all functions relating to, the enforcement in such city of all ordinances thereof relating to public health and sanitation, and the making of all inspections and the performance of all functions in connection therewith. Whenever such contract has been duly entered into, the county health officer and his deputies shall thereupon exercise the same powers and duties within such city or town or chartered city as are conferred upon health officers thereof by law. In any such contract the city, town or chartered city shall have power and authority to provide for the payment by such incorporated city or town or chartered city to the county of such consideration as may be agreed upon, the same to be paid to the county treasurer of the county, which compensation shall be payable at such times as shall be specified and shall be in an amount to repay such county for the entire cost to it of the services required in the enforce-

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ment of said ordinances under the terms of such contract to be performed for such city, as nearly as the same can be estimated or ascertained.

The board of supervisors of any county may contract with any incorporated city or town or chartered city within such county, through its board of trustees, council or other legislative body, to secure the performance by the health officer or other health department employees of such city, town or chartered city, in any unincorporated territory adjacent thereto, of any or all functions relating to public health. Payment for said services in such unincorporated territory shall be made by the county to the city treasurer of such city or town or chartered city.

Said contracts may further provide for the care and support, including medical attendance, of indigent sick, and for compensation therefor.

The provisions of this section shall not apply to cities of the first and one-half class.

Federal Food and Drug Administration.—A recent report states:

Dangerous Drugs.—One shipment of below-standard pituitary solution and 2,950 bottles of alcohol rubs made up with isopropyl alcohol were also seized. At Minneapolis and Pittsburgh large lots of a first-aid kit containing a product labeled "Novo Iodine Compound" were seized on a showing that the compound was in reality a solution of one-half of one per cent chloramine and one-seventh of one per cent potassium iodate in water; and 589 bottles of "Epsolin" (Epsom Salt Compound) were seized because of the false implication that the product depended for its effect upon Epsom salt, when the predominantly active ingredients were phenolphthalein and aloin.

Cure-All Claims.—Actions because of false and fraudulent curative claims involved the following: one lot of cod-liver oil, offered for the treatment of pulmonary affections, cough, and general debility; "H. G. C.," a liquid containing borax and berberin sulphate, and a powder consisting of magnesium sulphate, for venereal diseases; "Holford's Famous Inhaler," containing lavender flowers, mustard seed, and oil of mustard, for headaches, catarrh, asthma, sinus trouble, hay fever, cold in the lungs, sore throat, constant cough, tonsillitis, toothache, neuralgia, and fainting spells; "Kirby's Miracle Mineral," a water solution of iron sulphate, for erysipelas, diabetes, blood poisoning, sore throat, tonsillitis, women's diseases, venereal diseases, earache, food poisoning, and swellings; "Kloria," containing chloramin and salt, falsely represented as "40 times more powerful than carbolic acid," "non-poisonous" and "safe," for skin diseases, inflammations, gum infections, sore throat, dandruff, pyorrhea, and inflamed eyes; "McKesson's Milk of Magnesia Tooth Paste," containing calcium carbonate, milk of magnesia, borax, glycerin, talc, soap, water, peppermint and pink coloring, for bleeding gums, pyorrhea, and trench mouth; "My-Kel Tooth Powder," sodium perborate and talc, flavored with methyl salicylate, for pyorrhea, mouth infections, tooth decay, and to develop firm gums; "Milam Herb Compound," containing plant extractives, laxatives and small quantities of nitric and salicylic acids, for digestion, all ailments arising from impure, impoverished, or acid blood, and for run-down and depleted conditions; "Synex," part of the "Synoscope Treatment," containing eucalyptus, camphor, menthol and alcohol 24.8 per cent (20 per cent declared on the label), for sinus trouble, catarrh, and hay fever; "Videx," an amidopyrin pain-relieving tablet, falsely represented as safe, nontoxic, harmless and imposing no penalties for its use, and as not impeding or interfering with natural processes; "Vita-Mil," a water-and-alcohol solution of plant extractives and laxatives including cascara and flavoring, for stomach and liver ailments; "Pulvex Worm Capsules," containing castor oil, oil chenopodium and arecolin, for hook- and round-worms in dogs, found on test to be ineffective against those worms, although it worked on tapeworms;

(Continued on Next Page)

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A small select sanitarium, administering to those who desire the utmost in scientific study and medical care. An ideal place for those who appreciate beautiful surroundings and a healthful, invigorating atmosphere. Located in the foothills, six miles east of San Jose, overlooking the beautiful Santa Clara Valley. Days are temperate, nights definitely cool. Elevation 1,000 feet. All private rooms.

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(Continued from Preceding Page)

"Turner's Solution for poultry," a solution of potassium permanganate (2 per cent), manganese and iron sulphates in water, for coccidiosis, worms and range paralysis in poultry; and "Walko Tablets," containing iron sulphate, potassium permanganate, alum, and gypsum, for poultry ailments.

Social Security Board Approves California Old-Age Assistance Plan.—The Social Security Board recently approved the old-age assistance plan of California and authorized a grant of $2,700,140.63 of federal funds to the state, as the federal share of this state's expenditures for old-age assistance during the period April 1 to June 30.

California officials estimate that the plan will provide cash payments for 68,575 needy aged persons during the three months' period at an average monthly rate of $25 per person and at a total cost for the period of $5,143,125, exclusive of administration.

The federal grant to the state will match dollar for dollar the amount, up to a combined federal-state total of $30 per month, which California pays to a needy individual sixty-five years of age or over who is not an inmate of a public institution. The federal grant also includes an additional five per cent of this amount which the state may use toward the administrative costs of the plan, for assistance to the aged, or for both.

Old-age assistance in California is administered by county boards of supervisors under the supervision of the State Department of Social Welfare. During 1934, California granted assistance to 19,619 aged persons at an average monthly rate of $20.21 per person. The total cost of assistance during the year was $4,288,508.

Approval of California's old-age assistance plan brings the number of states with approved plans for this form of public assistance to a total of thirty-two. It is estimated that the total number of persons receiving aid under old-age assistance plans so far approved by the Board will be approximately 631,700 during the three-month period ending June 30. The federal contribution to the states for the care of these persons is expected to be more than $16,200 during this period.

To be approved by the Social Security Board, a state plan for old-age assistance must apply to needy aged persons in all parts of the state. There must be a single state agency to administer the plan or to supervise administration of the plan if it is directly administered by the counties. This state agency must have power to hear appeals from any decision denying assistance to an applicant.

The Cardiovascular-Renal Diseases.—Cardiovascular-renal diseases present an outstanding problem to the medical profession. The death rate from cardiovascular-renal diseases has not decreased since 1900. During the same period there have been marked declines in mortality from acute diseases of childhood and of early adult life. The cardiovascular-renal diseases stand first in the mortality list today and are responsible for more than a half-million deaths annually. After the age of forty-five the death rate from these conditions is four times that from cancer and nearly twenty times that from tuberculosis or diabetes.

Mortality from these diseases is shown in a curve that indicates the age of the victims—slowly rising at first, but then more rapidly after the age of forty-five where the progressive degeneration of the heart, kidneys, and arteries is reflected in the mortality.

In the agricultural regions of the country relatively low death rates are reported from cardiovascular-renal diseases, while the highest mortality is registered among residents on the eastern seaboard.

At the present time every other death occurring past middle life is from cardiovascular-renal conditions. This compares with one death in three from these causes in 1900 among persons forty-five years of age or older.

Facts for you on the healthfulness of RAINIER STOUT

Alcohol, by weight	6.56%
Alcohol, by volume	8.20
Extract (Solids by weight)	9.18
Albuminous Substances	0.83
Maltose	0.54
Dextrins — Dextrose — Pentosane	5.42
Glycerine	0.125
Lactic Acid, grms per 100 cc	0.19
Mineral Matter	1.69
End degree of fermentation	63.85

(Analysis by Pacific Chemical Laboratories, San Francisco)

RAINIER STOUT

Scientifically brewed from fancy Western grains for use as a tonic. Fully fermented, digestibility 100% (Koenig method), well balanced carbohydrate content, aged at least three months. 2 dozen 12 ounce bottles to the carton. A sample of Rainier Stout will be sent to any physician upon request.

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THE RHYTHM

Of Sterility and Fertility in Women

A Discussion of the Physiological, Practical and Ethical Aspects of the Discoveries of Drs. K. Ogino (Japan) and H. Knaus (Austria) Regarding the Periods When Conception is Impossible and When Possible.

By Leo J. Latz, M.D., LL.D.

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By 1960 it is expected 1,220,000 deaths will occur annually from these diseases. This is twice the annual deaths at present from cardiovascular-renal diseases. The rise will attend the increasing proportion of aged persons in the population.

Men are subject to higher mortality from cardiovascular-renal diseases than are women. This is especially true in the period from fifty to sixty-five years, where the rate for men is 25 to 30 per cent higher than that for women.

These diseases take their greatest toll among unskilled workers, with professional men showing high mortality rates. Agricultural workers make the best showing, their mortality being only half that of unskilled laborers. Among negroes, between the ages of forty-five and sixty-five, these death rates are nearly double that for white persons.

Expert Testimony: Right of Attorney to Obligate Client to Pay Fee of Expert Witness.*—The defendant in this case had been injured in an accident. The physician-plaintiff, a roentgenologist, interpreted certain roentgenograms for her attending physician and was paid for doing so. Subsequently she sued the corporation that she held responsible for her injuries, and her attorney requested the physician-plaintiff to testify on her behalf as an expert witness in that suit. The defendant herself did not expressly employ the physician-plaintiff, but she was present at the trial in the course of his testimony and, without objection on her part, listened to it. She refused to pay for the services thus rendered, however, and the physician-plaintiff sued to recover their value. The defendant did not deny the necessity for his testimony as an expert witness or the reasonableness of his fee, but she denied that she had employed him or that her counsel had authority to employ him on her behalf. On motion of the defendant, the trial court withdrew the case from the consideration of the jury, on the ground that the evidence did not support the plaintiff's claim. The physician-plaintiff thereupon appealed to the supreme court of New Jersey.

An attorney, said the Supreme Court, has no authority under his retainer to surrender or waive without the consent of his client any substantial legal right. But when the defendant's attorney obligated his client to the extent of $100, he did not surrender or waive any of his client's substantial rights. His act was that of a careful and prudent attorney, to protect and promote his client's interest. It is common knowledge, said the court, that, when one has sustained serious injuries, roentgenograms are frequently made by experts to determine the nature and extent of such injuries; that an expert is necessary to interpret such roentgenograms, and that it is common practice to use the testimony of such experts, whenever available, in a suit to recover damages for such injuries. Furthermore, continued the court, if the propriety of a challenged expenditure for which the defendant denied liability is to be judged by the result obtained, the defendant's failure to challenge either the necessity of the expert testimony given or the reasonableness of the fee charged is readily understood; in the case in which such testimony was given, the defendant in this case, who was the plaintiff there, recovered a verdict of $15,000.

It is far from a mere conjecture, said the Supreme Court, that if the attorney had failed to produce this expert testimony—and he could not produce it unless it was volunteered, without arranging for the payment of the expert—he might well have subjected himself to a claim of negligence, at the suit of his client. The Supreme Court was of the opinion, therefore, that an attorney who is retained to prosecute a suit for damages arising out of an accident has implied authority to obligate his client to pay the fee of an expert witness whom he employs to testify in behalf of such client, when the necessity for such a witness and the reasonableness of his fee are not challenged. Accordingly the Supreme Court reversed the judgment of the trial court withdrawing the case from the jury (*Klein* vs. *Boylan*, (N. J.), 179 A. 638).—*Journal of the Medical Association.*

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* See also editorial comment, February, 1936, issue of California and Western Medicine, page 74.

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Report of Cancer Research Fund.—In the annual report of the Imperial Cancer Research Fund the retirement of the director, Dr. J. A. Murray, who had occupied his post since 1915, the second year of the inception of the fund, is recorded. With Doctor Bashford he laid the foundation for the experimental investigation of cancer by proving that it is not confined to man, as was at one time believed. The material they collected on the natural incidence of cancer in mice provided investigators with a knowledge of the disease in this species equal to that in man. It enabled Doctor Murray subsequently to demonstrate the hereditary factor of the disease. He confirmed the observations of Jensen on transplantation and showed the important fact that this was due to an actual transplantation of living cells and not to an infection of the new host by some agent separable from the cells. The subsequent discovery by Peyton Rous of tumors of the fowl which can be transmitted without the intervention of living cells led to numerous reinvestigations of Doctor Murray's early work, which have served to confirm it. Of equal importance are his investigations of the phenomena of immunity, which renders a normal animal resistant against transmission of the disease by transplaantation.

The new director is Dr. W. E. Gye, whose work on the pathology of cancer is well known. In his report he points out that the facts that in all vertebrates normal cells can undergo malignant transformation and that such cells possess everywhere the same fundamental properties are the foundation of the experimental investigation of cancer. Of the diseases that can be produced experimentally, few if any simulate the normal human disease so closely as cancer.

Cancer Not Increasing at an Alarming Rate.—Doctor Gye points out that the prevalent opinion of a rapid increase of cancer was based on the crude figure of total cancer mortality. Bashford analyzed cancer mortality

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with reference to the different organs, separating accessible sites, where the diagnosis was easy, from inaccessible sites, where the diagnosis was difficult. He found that the recorded increase fell largely, though not entirely, on inaccessible sites, especially the stomach, while the skin and uterus showed no increase. Investigation of more than ten thousand cases at the London hospitals showed in the accessible sites that only 9 per cent were not recognized clinically, while the figure for inaccessible sites was 38 per cent—an astonishingly high figure for large hospitals with the most advantageous conditions for diagnosis. Thus the recorded total mortality of cancer must be much lower than the actual mortality. The greater attention paid in recent times to the clinical recognition would tend to diminish the extent of missed diagnoses and increase the recorded mortality.

Experimental Cancer Investigations. — Transplantation of cancer was found to be successful only within the species from which the tumor was derived. Hence the failure to transmit human cancer to the lower animals. The propagation of a mouse cancer in mice can be carried on indefinitely. It follows that the *primum movens* of the disease is in the cancer cell itself and successive generations of normal mice are unable to affect the malignant properties of the transplanted cells. There is an important practical deduction. The laboratories of the Imperial Cancer Research Fund are willing to investigate so-called cancer cures. But almost all the "cures" brought for examination are based on an assumption that cancers arise and grow because of some constitutional defect in the body of the patient. It has been assumed that they progress because some gland is inadequate in what is supposed to be its function of controlling growth. These "cures" have all been tested, and they have been found useless.

Virus Cancers. — In 1911 Peyton Rous described a spindle cell sarcoma of the domestic fowl that could be propagated not only by grafts, but by cell-free filtrates. Subsequently a score or more of filtrable avian tumors of diverse structure were described. Thus there exists a group of tumors produced by intracellular agents indistinguishable from the viruses. Doctor Gye, therefore, assigns to these agents a specific part in the genesis of tumors. The recent discovery by Shope of a filtrable papilloma of the cottontail rabbit has broken the apparently absolute difference in respect of filtrability between tumors of mammals and tumors of birds. Another important discovery was made by Professor McIntosh at the Middlesex Hospital. Tumors were started in fowls by injecting tar subcutaneously, and these were transplanted into normal fowls. In some cases it was found possible, once the difficulties of propagation had been overcome, to transmit the growths by means of cell-free filtrates. The part played by tar in cancer causation is thus different in kind from the part played by the filtrable agent, which can be obtained again and again from successive generations of the tumor.—London Correspondent, *Journal of the American Medical Association.*

Principles.—A healthy man, with all the world around him for library and laboratory, need not cease to learn. But his mind, if it is to grow, cannot be nourished on prepossessions or other men's conclusions. It is developed rather by thinking, thinking subjects through in an orderly way, without taking any step for granted. In the domain of studies, as Dr. Martin Fischer observes, the so-called "practical man," loath to lay solid foundations, "continues to practice the mistakes of his forefathers." The commonplace, reviewed, and viewed rightly, fires the imagination. "I have never met anyone other than a scientist or painter," wrote John C. Van Dyke, "who could conscien-

(Continued on Next Page)

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(Continued from Preceding Page)

tiously say he had spent five consecutive minutes of his life looking at the sky above him." The spirit of learning is concerned with the *how* and *why* rather than with the *what*. Facts clutter, unless they are correlated.

Take a Tip from Your Dog!—Have You Learned to Relax?—*Speed! Speed! Speed!* Speed is the spirit of today! We must all learn to relax. Have you ever noticed your dog? After he is through running and playing, have you noticed how he completely relaxes and falls asleep on the rug at your feet? He lets down, rests every nerve and muscle, and builds up his strength for the next run.

You, too, need to relax. Take a tip from your dog and let down. In these high-tension days it is vitally important to learn to relax. A prominent efficiency expert has told us that we should use our "moments of unavoidable delay" to relax and store up energy for our work. Let us do it.

Watch your dog when he wakes up; he stands up and stretches his entire body. That is another tip. Stretching and deep breathing are the finest of exercises. Throw open the window. Reach for the ceiling. Try to touch the floor with the tips of your fingers without bending your knees. Breathe! Stretch!—*Baxter Careful News*, Grand Rapids, Michigan.

Two Things to Do: Keep on Learning and You Will Never Slump Into a Static Age.—You are fortunate if you live well spontaneously. Some enjoy health without thought of hygiene. A man may be happy, thanks merely to what experience brings. Most of us, however, cannot achieve important ends without planning our lives. A ship is more likely to be brought safely to port when the pilot follows a charted course. It is difficult to give advice on mental planning. For the domain of the mind is still bordered with mystery. Since we have much in common, we strive toward certain goals, yet each of us lives an individual life. Allowance must, therefore, be made for idiosyncrasy, aptitude, and circumstance. Even so, two things may be recommended to nearly all men.

In the first place, get away at times from humdrum. You may do this by some adventure in learning, a new experience, exploration in new fields of action or thought. For example, now and then take up the study of a new science or a new language. In the second place, keep mentally fit. Your mind must not be allowed to slump. Its vigor is preserved only when you do not let it relax as occasions arise for observing, studying, and thinking. A Stradivarius violin loses its rich tone if it is not continually played on. Boethius likened the mind to a bow, which, once it is unstrung, is a mere piece of wood. The condition of the mind is, fortunately, less subject to the ravages of age than is that of the body. So offset physical decline by maintaining the powers of the mind through observation, study, and thought.

"Who are to blame for the increase of heart ailments? The doctors. Who are to blame for the rising tide of cancer cases? The doctors. There is no possible doubt about it. It has been said a hundred times that the increase of heart and cancer cases is due to the larger number of old and elderly people, and the doctors will surely not deny the credit due them for the marvelous prolongation of human life in our day. Two hundred years ago the average age of our population was twenty; now it is nearing sixty.

"Formerly, as a whole, we were young people; now, as a whole, we are old people. Dr. Howard W. Haggard revealed in a lecture that between 1920 and 1930 the number of persons over sixty-five increased no less than 34 per cent, and by 1980, at the present rate, half the population will exceed sixty-five years of age."—*New York State Journal of Medicine*, January 15, 1936.

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CANNED FOODS AND THE PUBLIC HEALTH

V. FOOD IN THE OPEN CAN

• In September 1935, the facts about food in the open can were presented on this page. It was stated that there was no reason, from the standpoint of food poisoning, why food must be removed immediately after the can is opened. This statement bore the Seal of Acceptance of The Committee on Foods of the American Medical Association.

However, since that time, two incidents have occurred which lead us to present again the facts concerning food in the open can.

First, late last fall, a national organization dedicated to the relief of human distress during war and disaster, issued a list of precautions designed to reduce accidents in the home, in which it was erroneously recommended that food be removed from the can immediately. The Department of Agriculture detected this error and called it to the attention of those responsible for issuance of the recommendations. A correction was made as soon as possible but the damage had already been done. The original safety recommendations had meanwhile been issued in schools and newspapers throughout the country, thus giving further support to this old, unbased prejudice against canned foods.

Second, in the early months of 1936, a release regarding food in the open can was made by a national press service to newspapers throughout the land. The strong inference was made in this press release that food left in the open can might become hazardous to consumer health.

This dissemination of misinformation, referred to in the two instances cited above, has caused an increase in the number of consumer inquiries concerning the safety of food in the open can. To reply to these requests for reliable information, we can well quote from a recent release made by the Department of Agriculture (1).

(1) U.S.D.A. Press Release, Feb. 23, 1936

> "It is just as safe to keep canned food in the can it comes in—if the can is cool and covered—as it is to empty the food into another container. Thousands of housewives are firm in the faith that canned goods ought to be emptied as soon as the can is opened, or at least before the remainder of the food goes into the refrigerator—one of the persistent food fallacies. The question keeps coming to the Bureau of Home Economics in letters from home-makers.
>
> "A few acid foods may dissolve a little iron from the can, but this is not harmful, not dangerous to health. Cans and foods are sterilized in the 'processing'. But the dish into which the food might be emptied is far from sterile. In other words, it is likely to have on it bacteria that cause food to spoil.
>
> "Whether in the original can or in another container, the principal precautions for keeping food are—Keep it cool and keep it covered."

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Regulations Governing Psittacosis — A Communicable Disease.* — Introduction. — Previous Regulations Rescinded. These regulations supersede all previous resolutions, orders, or regulations of said board pertaining to the importation of psittacine birds, or to the maintenance of aviaries, or to the control of psittacosis infection in psittacine birds, or pertaining to the shipment of psittacine birds.

Rule 1. Importation of Shell Parrakeets Prohibited. The importation into the State of California of all birds of the psittacine family known as *Melopsittacus undulatus* (shell parrakeets) is prohibited, except that shipments of such birds from a foreign country consigned to another state or consigned from another state to a foreign country or consignments of such birds between other states may be permitted to pass through California if under official seal, cages or other containers holding such birds not to be opened during transit and provided such shipments and birds conform to the requirements of the United States Government regulations.

Rule 2. Registration Fee. No person, firm, association or corporation shall maintain or conduct any aviary or other place where shell parrakeets (*melopsittacus undulatus*) may be sold, offered for sale, trade or barter, unless he or she has paid his or her annual fee of $5 and has his or her certificate of registration. This fee is due July 1 of each year.

Rule 3. Inspection and Release of Aviaries. Only those shell parrakeets (*Melopsittacus undulatus*) may be sold, offered for sale, trade or barter which are eight months of age or older and which originated in aviaries duly inspected, tested and released by the State Department of Public Health.

Rule 4. Legbanding Shell Parrakeets. Those shell parrakeets (*Melopsittacus undulatus*) sold, offered for sale, trade or barter from officially released aviaries shall wear legbands of such metal and size as prescribed by the State Department of Public Health. These legbands shall bear the code number assigned to the breeder by the State Department of Public Health and such insignia as designated by that department to indicate official inspection.

Rule 5. Aviary Records. Each breeder shall issue an invoice on form prescribed and furnished by the State Department of Public Health for each transaction involving shell parrakeets (*Melopsittacus undulatus*). This invoice shall include the name and address of the purchaser, the official legband code number of each shell parrakeet, the date of the transaction and such other data as are required on the invoice. The original invoice shall be given to the recipient of the birds, one copy shall be sent to the State Department of Public Health and one copy shall be retained on file by the breeder.

All dealers in shell parrakeets (*Melopsittacus undulatus*) shall be required to keep a permanent record of each and every transaction involving shell parrakeets. This record shall include the name and address of the purchaser, the official legband number of each shell parrakeet and the date of the transaction.

All records of sales, exchanges, or purchases herein prescribed shall be available for official inspection at all times.

Rule 6. Nontested Shell Parrakeets not Permitted on Premises of Released Aviaries. Breeders, dealers, wholesalers or retailers or anyone authorized to sell, offer for sale, trade or barter shell parrakeets (*Melopsittacus undulatus*) shall not acquire or house on their premises shell parrakeets from nontested aviaries.

Rule 7. Cancellation of Permits. The violation of any section of these regulations by a breeder shall constitute cause for the cancellation of his or her aviary release permit, in addition to being subject to punishment as provided in the Penal Code, Section 377a.

Rule 8. Illegal Shell Parrakeets in Interstate or Intrastate Traffic. Proof of the finding of shell parrakeets without legbands as prescribed by these regulations in

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*Adopted by the California State Board of Public Health on April 10, 1936, pursuant to the provisions of the Public Health Act (Stats. 1907, p. 893, as amended), Sections 2979 and 2979a, appertaining to, among other things, birds known as shell parrakeets.

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interstate or intrastate commerce shall be *prima facie* evidence of a violation of these regulations.

Rule 9. In the event that any portion of these regulations be declared unconstitutional or void, the State Board of Public Health hereby declares it would have adopted the balance thereof irrespective of such invalid portion.

Penalty. The violation of any of the provisions of these regulations constitutes a misdemeanor under the Public Health Act, Section 21 and Section 377a of the Penal Code.

Sleep and Efficiency.*—In the order of their importance, the vital requirements of life are air, water, sleep, and food. We cannot live without air for more than a small fraction of an hour. We cannot exist without water for more than a few days. Two weeks without sleep usually results in death from exhaustion. Without food, life becomes extinct within fifteen to sixty days, depending upon the individual's health and weight at the beginning of the fast period. To be of normal quality and duration our vegetative existence (I mean an existence without consideration of brain function) depends upon the presence in satisfactory proportion of fresh air and water, adequate sleep, and a proper dietary.

We will not discuss in detail the matter of air and breathing, for this is usually well taken care of by our instinctive demands. Suffice it to say that in so far as air is concerned, the ideal life is that spent in the open. Any mode of existence approaching out-of-door life is the most conducive to immunity against respiratory affections and to satisfactory longevity.

Normal health requires a normal intake of good water, for be it remembered that our bodies consist more of water than of solids.

Since sleep is the time of day when nature repairs the wear and tear of our waking hours, everyone who values health and efficiency must give serious thought to the period of time spent in bed. The average person spends one-third of his mortal existence in his bedroom. Thus the average sixty-year-old man or woman has spent twenty years in bed. Is it not strange that comparatively little thought is given this vital phenomenon.

Sleep may be defined as the state of periodic physiologic unconsciousness. The quantity of sleep required by a person in good health depends upon many factors. Many rules have ben promulgated with regard to how much sleep an adult should have. Let us examine some of them:

"Eight hours for sleep, eight hours for work, eight hours for play."

"Eight hours for sleep, eight hours for work, eight hours for prayer."

"Six hours for a man, seven for a woman, eight for a fool."

"Retire with the birds and wake up with them."

"Sleep until you feel you've had enough."

The factor strongly controlling the quantity of sleep is its depth. Was the sleep sound and did you arise feeling refreshed and strong? Five hours sound sleep—a sleep in which you are "dead to the world"—is far more capable of restoration of body and mind to normal capacity for work than a ten hours' period of restlessness and tossing in bed, with an occasional nightmare. Absolute rest presupposes a dreamless slumber, and the result obtained is a desire to arise and be up and doing—an eagerness to meet the day's tasks.

In 1928 I communicated with a number of prominent men and women in various walks of life, inquiring on their sleep habits. Among the many interesting letters received was one from Thomas A. Edison, written in his own hand with a lead pencil. It read as follows: "Up to the sixtieth year of life four hours of sleep daily sufficed; since then I require six hours. Sleep is a matter of habit; if the will is powerful the time can be diminished. Nature will then compensate by making the sleep more profound and dreamless." Another letter, from General W. W. Atterbury, read as follows: "I find seven or eight hours

(Continued on Next Page)

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* By Israel Bram, M. D.

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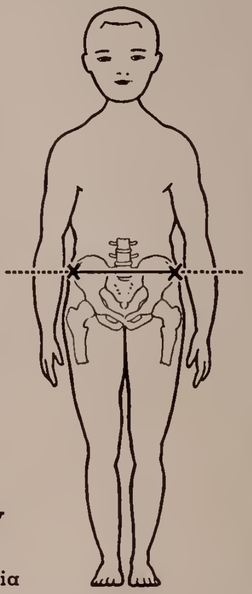

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of sleep quite sufficient and have no difficulty in falling asleep. In order to sleep soundly and satisfactorily, you must take no work home with you at night and let nothing worry you."

It is generally agreed that sleep requirements depend upon the individual's age, inherited constitution, physical and mental development and health, vocation and avocation, habits, and even diet. The average man should take seven or eight hours of sleep, the average woman eight or nine hours.

There are persons who cannot sleep well if they eat or drink too close to bedtime. However, I have seen many insomniacs cured of their malady by the taking of a slice or two of bread and butter or toast with a glass of hot milk on retiring. In the event of poor sleep, this harmless remedy is well worth trying.

The Powers and Duties of the Health Officer.—Health officers and boards of health generally are given broad powers in order that they may be equipped to act quickly and efficiently in the control of communicable diseases. It is necessary that full power to act in an emergency be conferred upon the public health authorities. It is also necessary that such authorities shall never under any circumstances use such powers without cause or for any purpose other than the direct control of communicable disease. The efficiency of the health officer may often be gauged by the skill and discernment with which he exercises the powers that have been conferred upon him. The Santa Barbara *News* in its issue of April 17, 1936, makes the following editorial comment upon this subject:

"Several suggestions, made here and in other cities recently, that the powers of municipal health departments be used to accomplish results not so easily obtained by other departments, have—while not dangerous or vicious in themselves—drawn attention to a danger that is growing throughout the United States. It has been urged in Santa Barbara and other California cities that, while certain problems of zoning, housing and similar problems, are not strictly public health questions, they could be quickly and satisfactorily handled if considered as health matters and subjected to the somewhat dictatorial powers of health officers.

"Health officers have, by state and federal law, been given great and broad powers for the purpose of fighting disease and death, and for those purposes only.

"Governmental affairs that have to do with appearances, order, comfort, community use, and so on, in many places are being classed as health matters, so that health officers may be allowed to step in and use the authority which was given them so that they might, without the delays required by 'the due process of law,' act to prevent any spread of disease that might be epidemic before courts could hand down a decision, if such had to be awaited.

"It is not a matter of health that a neighborhood is unsightly, that a neighborhood is noisy, or that certain conditions produce odors that are unpleasant but in no way unhealthy. Of course, it might be argued that anything which has to do with the comfort and enjoyment of an individual or a community is related to health, but if the issue is stretched that far, then every action of government affects the health of the people governed—and the health departments would be warranted in lowering taxes because high taxes cause worry that prevents, or often seemingly threatens, the best of health!

"As a matter of common sense, however, it can be agreed that health officials are given dictatorial powers so that they can shut off a water supply, if it is contaminated with typhoid, or quarantine a house or a whole city, if it is the source of dangerous contagion. Under such conditions one cannot wait for the filing of suit, demurrers, jury trials, court decisions, reviews, appellate court decisions, appeals and supreme court decisions plus a few demands for new trials. On the other hand, if rotting vegetables cause a disagreeable odor, if clotheslines offend neighbors, even if houses are uncomfortable and in bad condition, civilization has not reached a state of mind in

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which it is willing that some officer of the law can order or change without 'due process of law.'

"It might be satisfactory—if all health officials within the land were men of broad vision and intelligence—to allow such absolute activities. That is only repeating in another way the old saying that 'a benevolent dictatorship is the best type of government.' But such benevolence cannot always be depended upon, and our present system of government in America must be maintained so that it will be its own protection against abuse, even if that protection often retards progress and causes some services of state and municipality to be hindered.

"In short, there is little use being a healthy people unless we are a free people."

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